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Published articles in APS journals***I. Physical Review Letters***

1. Theory for the Polarizability Function of an Electron Layer in the Presence of Collisional Broadening Effects and its Experimental Implications (S. Das Sarma) Phys. Rev. Lett. **50**, 211 (1983).
2. Theory of Two Dimensional Magneto-Polarons (S. Das Sarma), Phys. Rev. Lett. **52**, 859 (1984); erratum: Phys. Rev. Lett. **52**, 1570 (1984).
3. Proposed Experimental Realization of Anderson Localization in Random and Incommensurate Artificial Structures (S. Das Sarma, A. Kobayashi, and R.E. Prange) Phys. Rev. Lett. **56**, 1280 (1986).
4. Frequency-Shifted Polaron Coupling in GaInAs Heterojunctions (S. Das Sarma), Phys. Rev. Lett. **57**, 651 (1986).
5. Many-Body Effects in a Non-Equilibrium Electron-Lattice System: Coupling of Quasiparticle Excitations and LO-Phonons (J.K. Jain, R. Jalabert, and S. Das Sarma), Phys. Rev. Lett. **60**, 353 (1988).
6. Extended Electronic States in One Dimensional Fibonacci Superlattice (X.C. Xie and S. Das Sarma), Phys. Rev. Lett. **60**, 1585 (1988).

7. Strong-Field Density of States in Weakly Disordered Two Dimensional Electron Systems (S. Das Sarma and X.C. Xie), Phys. Rev. Lett. **61**, 738 (1988).
8. Mobility Edge is a Model One Dimensional Potential (S. Das Sarma, S. He, and X.C. Xie), Phys. Rev. Lett. **61**, 2144 (1988).
9. Role of Discrete Slab Phonons in Carrier Relaxation in Semiconductor Quantum Wells (J.K. Jain and S. Das Sarma), Phys. Rev. Lett. **62**, 2305 (1989).
10. Finite Size Studies of Semion Systems (X.C. Xie, S. He, and S. Das Sarma), Phys. Rev. Lett. **65**, 649 (1990).
11. Collective Modes in Layered Superconductors (H.A. Fertig and S. Das Sarma), Phys. Rev. Lett. **65**, 1482 (1990).
12. A New Universality Class for Kinetic Growth: One Dimensional Molecular Beam Epitaxy (S. Das Sarma and P. Tamborenea), Phys. Rev. Lett. **66**, 325 (1991).
13. Boson-Fermion Mapping and Off-Diagonal-Long-Range-Order in Fractional Quantum Hall Effect (X.C. Xie, S. He, and S. Das Sarma), Phys. Rev. Lett. **66**, 389 (1991).
14. Kinetic Growth with Surface Relaxation: Continuum versus Atomistic Models (Z.W. Lai and S. Das Sarma), Phys. Rev. Lett. **66**, 2348 (1991).
15. On the Nature of Coupled-Mode Contributions to Hot-Electron Relaxation in Semiconductors (S. Das Sarma and V. Korenman), Phys. Rev. Lett. **67**, 2916 (1991).
16. Many-Body Properties of a Quasi-One Dimensional Semiconductor Quantum Wire (B. Hu and S. Das Sarma), Phys. Rev. Lett. **68**, 1750 (1992).
17. Effect of Interplane Coupling on Anyon Superconductivity (H.A. Fertig, S. He and S. Das Sarma,) Phys. Rev. Lett. **68**, 2676 (1992).
18. Edge Reconstruction and Edge Melting of the Two Dimensional Wigner Crystal in a Strong Magnetic Field (H.A. Fertig, R. Cote, A.H. MacDonald and S. Das Sarma), Phys. Rev. Lett. **69**, 816 (1992).
19. Solid-on-Solid Rules and Models for Nonequilibrium Growth in 2+1 Dimensions (S. Das Sarma and S.V. Ghaisas), Phys. Rev. Lett. **69**, 3762 (1992).
20. Theory of Photoluminescence from the Wigner Crystal in a Strong Magnetic Field (H.A. Fertig, D.Z. Liu, and S. Das Sarma), Phys. Rev. Lett. **70**, 1545 (1993).
21. Giant Many-Body Enhancement of Low Temperature Thermal Electron-Acoustic Phonon Coupling in Semiconductor Quantum Wires (J.R. Senna and S. Das Sarma), Phys. Rev.

- Lett. **70**, 2593 (1993).
22. Reply to the Comment on "Solid-on-Solid Rules and Models for Nonequilibrium Growth in 2+1 Dimensions" (S. Das Sarma and S.V. Ghaisas), Phys. Rev. Lett. **71**, 2510 (1993).
 23. Absence of Spin-Density Excitations in Quasi Two-Dimensional Electron Systems (Q. Decca, A. Pinczuk, S. Das Sarma, B.S. Dennis, L.N. Pfeiffer, and K.W. West), Phys. Rev. Lett. **72**, 1506 (1994).
 24. Reply to "Many-Body Effect on the Energy-Loss Rate of Hot-Electrons" (S. Das Sarma and J.R. Senna), Phys. Rev. Lett. **72**, 2813 (1994).
 25. Discrete Models for Conserved Growth Equations (J.M. Kim and S. Das Sarma), Phys. Rev. Lett. **72**, 2903 (1994).
 26. Collective Coulomb Blockade in an Array of Quantum Dots: A Mott-Hubbard Approach (C.A. Stafford and S. Das Sarma), Phys. Rev. Lett. **72**, 3590 (1994).
 27. Vertex-Correction-Driven Intersubband-Spin-Density Excitonic Instability in Double Quantum Well Structures (S. Das Sarma and P.I. Tamborenea), Phys. Rev. Lett. **73**, 1971 (1994).
 28. Dynamical Scaling and Phase Separation in Kinetic Growth Models with a Diffusion Bias (C.J. Lanczycki and S. Das Sarma), Phys. Rev. Lett. **76**, 780 (1996).
 29. Comment on "Energy Dependence of Electron Lifetime in Graphite Observed with Femtosecond Photoemission Spectroscopy" (L. Zheng and S. Das Sarma), Phys. Rev. Lett. **77**, 1410 (1996).
 30. Spin-Excitation-Instability-Induced Quantum Phase Transitions in Double-Layer Quantum Hall Systems (L. Zheng, R.J. Radtke, and S. Das Sarma) Phys. Rev. Lett. **78**, 2453 (1997).
 31. Double-Layer Quantum Hall Antiferromagnetism at Filling Fraction $\nu = 2/m$ where m is an Odd Integer (S. Das Sarma, S. Sachdev, and L. Zheng) Phys. Rev. Lett. **79**, 917 (1997).
 32. c-Axis Optical Reflectivity of Layered Cuprate Superconductors (S. Das Sarma and E.H. Hwang) Phys. Rev. Lett. **80**, 4753 (1998).
 33. Plasmons in Coupled Bilayer Structures (S. Das Sarma and E.H. Hwang), Phys. Rev. Lett. **81**, 4216 (1998).
 34. Spin Relaxation of Conduction Electrons in Polyvalent Metals: Theory and a Realistic Calculation (J. Fabian and S. Das Sarma), Phys. Rev. Lett. **81**, 5624 (1998).

35. Resistivity Saturation Revisited: Results from a Dynamical Mean Field Theory (A.J. Millis, J. Hu, and S. Das Sarma), Phys. Rev. Lett. **82**, 2354 (1999).
36. Spin Bose-Glass Phase in Bilayer Quantum Hall Systems at $\nu = 2$ (E. Demler and S. Das Sarma), Phys. Rev. Lett. **82**, 3895 (1999).
37. Charged Impurity Scattering Limited Low Temperature Resistivity of Low Density Silicon Inversion Layers (S. Das Sarma and E.H. Hwang) Phys. Rev. Lett. **83**, 164 (1999).
38. Electromodulation of the Bilayered $\nu = 2$ Quantum Hall Phase Diagram (L. Brey, E. Demler, and S. Das Sarma) Phys. Rev. Lett. **83**, 168 (1999). cond-mat/9901296
39. Resonant Raman Scattering by Elementary Electronic Excitations in Semiconductor Structures (S. Das Sarma and D.W. Wang), Phys. Rev. Lett. **83**, 816 (1999).
40. Phonon-Induced Spin Relaxation of Conduction Electrons in Aluminum (J. Fabian and S. Das Sarma), Phys. Rev. Lett. **83**, 1211 (1999). cond-mat/9904140
41. Dissipationless Transport in Low-Density Bilayer Systems (A. Stern, S. Das Sarma, M.P.A. Fisher, and S.M. Girvin), Phys. Rev. Lett. **84**, 139 (2000). cond-mat/9908251
42. Many-Body Renormalization of Semiconductor Quantum Wire Excitons: Absorption, Gain, Binding, and Unbinding (S. Das Sarma and D.W. Wang), Phys. Rev. Lett. **84**, 2010 (2000). cond-mat/9905038
43. Parallel Magnetic Field Induced Giant Magnetoresistance in Low Density Quasi-Two Dimensional Layers (S. Das Sarma and E.H. Hwang), Phys. Rev. Lett. **84**, 5596 (2000). cond-mat/9909452
44. Comment on “Plasmons in Coupled Bilayer Structures” (S. Das Sarma and E.H. Hwang), Phys. Rev. Lett. **85**, 680 (2000).
45. Reply to the Comment on “Charged Impurity Scattering Limited Low Temperature Resistivity of Low Density Silicon Inversion Layers” (S. Das Sarma and E.H. Hwang), Phys. Rev. Lett. **85**, 3542 (2000). cond-mat/9901117
46. Where is the Luttinger Liquid in One Dimensional Semiconductor Quantum Wire Structures? (D.W. Wang, A.J. Millis, and S. Das Sarma), Phys. Rev. Lett. **85**, 4570 (2000). cond-mat/0004146
47. Interplay between Zeeman Coupling and Swap Action in Spin-Based Quantum Computer Models: Error Correction in Inhomogeneous Magnetic Fields (X. Hu, R. de Sousa, and S. Das Sarma), Phys. Rev. Lett. **86**, 918 (2001). cond-mat/0004459

48. Bilayer Coherent and Quantum Hall Phases: Duality and Quantum Disorder (E. Demler, C. Nayak, and S. Das Sarma), Phys. Rev. Lett. **86**, 1853 (2001). cond-mat/0008137
49. Disorder and Interaction in 2D: Exact Diagonalization Study of the Anderson-Hubbard-Mott Model (R. Kotlyar and S. Das Sarma), Phys. Rev. Lett. **86**, 2388 (2001). cond-mat/0002304
50. Kinetic Roughening in Polymer Film Growth by Vapor Deposition (P. Punyindu and S. Das Sarma), Phys. Rev. Lett. **86**, 2696 (2001). cond-mat/0010353
51. Transition Temperature of Ferromagnetic Semiconductors: A Dynamical Mean Field Study (A. Chattopadhyay, S. Das Sarma, and A.J. Millis), Phys. Rev. Lett. **87**, 227202 (2001). cond-mat/0106455
52. Exchange in Silicon Based Quantum Computer Architecture (B. Koiller, X. Hu, and S. Das Sarma), Phys. Rev. Lett. **88**, 027903 (2002). cond-mat/0106259
53. Spin-Polarized Transport in Inhomogeneous Magnetic Semiconductors: Theory of Magnetic/Nonmagnetic p - n Junctions (I. Zutic, J. Fabian, and S. Das Sarma), Phys. Rev. Lett. **88**, 066603 (2002). cond-mat/0106085
54. Polaron Percolation in Diluted Magnetic Semiconductors (A. Kaminski and S. Das Sarma), Phys. Rev. Lett. **88**, 247202 (2002). cond-mat/0201229
55. Experimental Persistence Probability for Fluctuating Steps (D.B. Dougherty, I. Lyubinetzky, E.D. Williams, M. Constantin, C. Dasgupta, and S. Das Sarma), Phys. Rev. Lett. **89**, 136102 (2002). cond-mat/0209068
56. Resistivity of Dilute 2D Electrons in an Undoped GaAs Heterostructure (M.P. Lilly, J.L. Reno, J.A. Simmons, I.B. Spielman, J.P. Eisenstein, L.N. Pfeiffer, K.W. West, E.H. Hwang, S. Das Sarma), Phys. Rev. Lett. **90**, 056806 (2003). cond-mat/0210155
57. Disentangling the Exchange Coupling of Entangled Donors in the Si Quantum Computer Architecture (B. Koiller, X. Hu, H.D. Drew, and S. Das Sarma), Phys. Rev. Lett. **90**, 067401 (2003). cond-mat/0207455
58. Frictional Drag in Dilute Bilayer 2D Hole Systems (E.H. Hwang and S. Das Sarma), Phys. Rev. Lett. **90**, 086801 (2003). cond-mat/0202249
59. Even-Odd Effect in Spontaneously Coherent Bilayer Quantum Hall Droplets (K. Park, V.W. Scarola, S. Das Sarma), Phys. Rev. Lett. **91**, 026804 (2003). cond-mat/0212106
60. High Temperature Ferromagnetism with a Giant Magnetic Moment in Transparent Co-Doped $\text{SnO}_{2.8}$ (S.B. Ogale, R.J. Choudhary, J.P. Buban, S.E. Lofland, S.R. Shinde, S.N. Kale, V.N. Kulkarni, J. Higgins, C. Lanci, J.R. Simpson, N.D. Browning, S. Das Sarma,

- H.D. Drew, R.L. Greene, and T. Venkatesan), Phys. Rev. Lett. **91**, 077205 (2003).
61. Infinite Family of Persistence Exponents for Interface Fluctuations (M. Constantin, S. Das Sarma, C. Dasgupta, O. Bondarchuk, D.B. Dougherty, and E.D. Williams), Phys. Rev. Lett. **91**, 086103 (2003).
 62. Pseudospin Quantum Computation in Semiconductor Nanostructures (V.W. Scarola, K. Park, and S. Das Sarma), Phys. Rev. Lett. **91**, 167903 (2003). cond-mat/0304225
 63. A Disordered RKKY Lattice Mean Field Theory for Ferromagnetism in Diluted Magnetic Semiconductors (D.J. Priour, Jr., E.H. Hwang, and S. Das Sarma), Phys. Rev. Lett. **92**, 117201 (2004). cond-mat/0305413
 64. Griffiths Phase in Diluted Magnetic Semiconductors (V. M. Galitski, A. Kaminski, and S. Das Sarma), Phys. Rev. Lett. **92**, 177203 (2004). cond-mat/0306488
 65. Chirality in Quantum Computation with Spin Cluster Qubits (V.W. Scarola, K. Park, S. Das Sarma), Phys. Rev. Lett. **93**, 120503 (2004). cond-mat/0403444
 66. Comment on “Interaction Effects in Conductivity of Si Inversion Layers at Intermediate Temperatures” (S. Das Sarma and E.H. Hwang), Phys. Rev. Lett. **93**, 269703 (2004). cond-mat/0310260
 67. Electric Field Effect in Diluted Magnetic Insulator Anatase Co:TiO₂ (T. Zhao, S.R. Shinde, S.B. Ogale, H. Zheng, T. Venkatesan, R. Ramesh, S. Das Sarma), Phys. Rev. Lett., **94**, 126601 (2005). cond-mat/0404172
 68. Two-Dimensional Metal-Insulator Transition as a Percolation Transition in a High-Mobility Electron System (S. Das Sarma, M.P. Lilly, E.H. Hwang, L.N. Pfeiffer, K.W. West, J.L. Reno), Phys. Rev. Lett. **94**, 136401 (2005). cond-mat/0406655
 69. Topologically-Protected Qubits from a Possible Non-Abelian Fractional Quantum Hall State (S. Das Sarma, M. Freedman, C. Nayak) Phys. Rev. Lett. **94**, 166802 (2005). cond-mat/0412343
 70. Temperature Dependent Weak Field Hall Resistance in 2D Carrier Systems (S. Das Sarma and E.H. Hwang) Phys. Rev. Lett. **95**, 016401 (2005). cond-mat/0412670
 71. Quantum Phases of the Extended Bose-Hubbard Hamiltonian: Prediction of a Supersolid State of Cold Atoms in Optical Lattices (V.W. Scarola and S. Das Sarma), Phys. Rev. Lett. **95**, 033003 (2005). cond-mat/0503378
 72. Quasi-Two Dimensional Diluted Magnetic Semiconductor Systems (D.J. Priour, Jr., E.H. Hwang, S. Das Sarma), Phys. Rev. Lett. **95**, 037201 (2005). cond-mat/0501149

73. Spin Polarization Dependence of Carrier Effective Mass in Semiconductor Structures: Spintronic Effective Mass (Y. Zhang and S. Das Sarma), Phys. Rev. Lett. **95**, 256603 (2005). cond-mat/0509300
74. Spin Hall Effect in Doped Semiconductor Structures (W.K. Tse and S. Das Sarma), Phys. Rev. Lett. **96**, 056601 (2006). cond-mat/0507149
75. Quantum Control of Donor Electrons at the Si-SiO₂ Interface (M. J. Calderon, B. Koiller, X. Hu, and S. Das Sarma), Phys. Rev. Lett. **96**, 096802 (2006). cond-mat/0508647
76. Charge Fluctuation Induced Dephasing of Exchange Coupled Spin Qubits (X. Hu and S. Das Sarma), Phys. Rev. Lett. **96**, 100501 (2006). cond-mat/0507725
77. Nonlinear 2D Spin Susceptibility in a Finite Magnetic Field: Spin-Polarization Dependence (Y. Zhang and S. Das Sarma), Phys. Rev. Lett. **96**, 196602 (2006). cond-mat/0512426
78. Comment on “Effects of Thickness on the Spin Susceptibility of the Two Dimensional Electron Gas” (Y. Zhang and S. Das Sarma), Phys. Rev. Lett. **97**, 039701 (2006). cond-mat/0507122
79. Phase Diagram of the Disordered RKKY Model in Dilute Magnetic Semiconductors (D.J. Priour, Jr. and S. Das Sarma), Phys. Rev. Lett. **97**, 127201 (2006). cond-mat/0606532
80. Quantum Stripe Ordering in Optical Lattices (C. Wu, W.V. Liu, J. Moore, and S. Das Sarma), Phys. Rev. Lett. **97**, 190406 (2006). cond-mat/0606743
81. Emergence of Artificial Photons in an Optical Lattice (S. Tewari, V.W. Scarola, T. Senthil, and S. Das Sarma), Phys. Rev. Lett. **97**, 200401 (2006). cond-mat/0605154
82. Quantum Computation Using Vortices and Majorana Zero Modes of a $p_x + ip_y$ Superfluid of Fermionic Cold Atoms (S. Tewari, S. Das Sarma, C. Nayak, C. Zhang, and P. Zoller), Phys. Rev. Lett. **98**, 010506 (2007). quant-ph/0606101
83. Multiple-Pulse Coherence Enhancement of Solid State Spin Qubits (W.M. Witzel and S. Das Sarma), Phys. Rev. Lett. **98**, 077601 (2007). cond-mat/0604577
84. Carrier Transport in Two-Dimensional Graphene Layers (E.H. Hwang, S. Adam, and S. Das Sarma), Phys. Rev. Lett. **98**, 186806 (2007). cond-mat/0610157
85. Edge Transport in 2D Cold Atom Optical Lattices (V.W. Scarola and S. Das Sarma), Phys. Rev. Lett. **98**, 210403 (2007). cond-mat/0612302
86. Index Theorem for the Zero Modes of Majorana Vortices in Chiral p-Wave Superconductors (S. Tewari, S. Das Sarma, and D.H. Lee), Phys. Rev. Lett. **99**, 037001

(2007). cond-mat/0609556

87. Flat Bands and Wigner Crystallization in the Honeycomb Optical Lattice (C. Wu, D. Bergman, L. Balents, and S. Das Sarma), Phys. Rev. Lett. **99**, 070401 (2007). cond-mat/0701788
88. Diluted Graphene Antiferromagnet (L. Brey, H.A. Fertig, and S. Das Sarma), Phys. Rev. Lett. **99**, 116802 (2007). arXiv:0705.1229
89. Bell's Inequality and Universal Quantum Gates in a Cold-Atom Chiral Fermionic p-Wave Superfluid (C. Zhang, S. Tewari, and S. Das Sarma), Phys. Rev. Lett. **99**, 220502 (2007). arXiv:0705.4647
90. Density Dependent Exchange Contribution to $\partial\mu/\partial\eta$ and Compressibility in Graphene (E.H. Hwang, B.Y.K. Hu, and S. Das Sarma), Phys. Rev. Lett. **99**, 226801 (2007). cond-mat/0703499
91. Transport and Percolation in a Low-Density High-Mobility Two-Dimensional Hole System (M.J. Manfra, E.H. Hwang, S. Das Sarma, L.N. Pfeiffer, K.W. West, and A.M. Sargent), Phys. Rev. Lett. **99**, 236402 (2007). arXiv:0710.3542
92. Phonon-Induced Many-Body Renormalization of the Electronic Properties of Graphene (W.K. Tse and S. Das Sarma), Phys. Rev. Lett. **99**, 236802 (2007). arXiv:0707.3651
93. Measurement of Scattering Rate and Minimum Conductivity in Graphene (Y.W. Tan, Y. Zhang, K. Bolotin, Y. Zhao, S. Adam, E.H. Hwang, S. Das Sarma, H.L. Stormer, and P. Kim), Phys. Rev. Lett. **99**, 246803 (2007). arXiv:0707.1807
94. Testable Signatures of Quantum Nonlocality in a Two-Dimensional Chiral p-Wave Superconductor (S. Tewari, C. Zhang, S. Das Sarma, C. Nayak, D.H. Lee), Phys. Rev. Lett. **100**, 027001 (2008). cond-mat/0703717
95. Intrinsic Gap of the $\nu=5/2$ Fractional Quantum Hall State (C.R. Dean, B.A. Piot, P. Hayden, S. Das Sarma, G. Gervais, L.N. Pfeiffer, and K.W. West), Phys. Rev. Lett. **100**, 146803 (2008). arXiv:0801.3312
96. Universal Pulse Sequence to Minimize Spin Dephasing in the Central Spin Decoherence Problem (B. Lee, W.M. Witzel, and S. Das Sarma), Phys. Rev. Lett. **100**, 160505 (2008). arXiv:0710.1416
97. Density Matrix Renormalization Group Study of Incompressible Fractional Quantum Hall States (A.E. Feiguin, E. Rezayi, C. Nayak, and S. Das Sarma), Phys. Rev. Lett. **100**, 166803 (2008). arXiv:0706.4469

98. Time-Reversal Symmetry Breaking by a ($d+id$) Density-Wave State in Underdoped Cuprate Superconductors (S. Tewari, C. Zhang, V.M. Yakovenko, and S. Das Sarma), Phys. Rev. Lett. **100**, 217004 (2008). arXiv:0711.2329
99. Finite-Layer Thickness Stabilizes the Pfaffian State for the $5/2$ Fractional Quantum Hall Effect: Wave Function Overlap and Topological Degeneracy (M.R. Peterson, Th. Jolicoeur, and S. Das Sarma), Phys. Rev. Lett. **101**, 016807 (2008). arXiv:0803.0737
100. Density Inhomogeneity Driven Percolation Metal-Insulator Transition and Dimensional Crossover in Graphene Nanoribbons (S. Adam, S. Cho, M.S. Fuhrer, and S. Das Sarma), Phys. Rev. Lett. **101**, 046404 (2008). arXiv:0804.2253
101. Chirality-Induced Dynamic Kohn Anomalies in Graphene (W.K. Tse, B.Y.K. Hu, and S. Das Sarma), Phys. Rev. Lett. **101**, 066401 (2008). arXiv:0801.1291
102. Dissipation-Driven Quantum Phase Transition in Superconductor-Graphene Systems (R.M. Lutchyn, V.M. Galitski, G. Refael, and S. Das Sarma), Phys. Rev. Lett. **101**, 106402 (2008). arXiv:0806.2335
103. Incommensurate Superfluidity of Bosons in a Double-Well Optical Lattice (V.M. Stojanovic, C. Wu, W.V. Liu, and S. Das Sarma), Phys. Rev. Lett. **101**, 125301 (2008). arXiv:0804.3977
104. Tuning the Effective Fine Structure Constant in Graphene: Opposing Effects of Dielectric Screening on Short- and Long-Range Potential Scattering (C. Jang, S. Adam, J.H. Chen, E.D. Williams, S. Das Sarma and M.S. Fuhrer), Phys. Rev. Lett. **101**, 146805 (2008). arXiv:0805.3780
105. Realizing the Strongly Correlated d -Wave Mott-Insulator State in a Fermionic Cold-Atom Optical Lattice (M.R. Peterson, C. Zhang, S. Tewari, and S. Das Sarma), Phys. Rev. Lett. **101**, 150406 (2008). arXiv:0805.4198
106. Screening, Kohn Anomaly, Friedel Oscillation, and RKKY Interaction in Bilayer Graphene (E.H. Hwang and S. Das Sarma), Phys. Rev. Lett. **101**, 156802 (2008). arXiv:0804.2255
107. Spontaneous Particle-Hole Symmetry Breaking in the $\nu=5/2$ Fractional Quantum Hall Effect (M.R. Peterson, K. Park, and S. Das Sarma), Phys. Rev. Lett. **101**, 156803 (2008). arXiv:0807.0638
108. p_x+ip_y Superfluid from s -Wave Interactions of Fermionic Cold Atoms (C. Zhang, S. Tewari, R.M. Lutchyn, and S. Das Sarma), Phys. Rev. Lett. **101**, 160401 (2008). arXiv:0805.4203

109. Ground State of Graphene in the Presence of Random Charged Impurities (E. Rossi and S. Das Sarma), Phys. Rev. Lett. **101**, 166803 (2008). arXiv:0803.0963
110. Contrasting Behavior of the 5/2 and 7/3 Fractional Quantum Hall Effect in a Tilted Field (C.R. Dean, B.A. Piot, P. Hayden, S. Das Sarma, G. Gervais, L.N. Pfeiffer and K.W. West), Phys. Rev. Lett. **101**, 186806 (2008). arXiv:0805.3349
111. Electron Spin Dephasing due to Hyperfine Interactions with a Nuclear Spin Bath (L. Cywinski, W.M. Witzel, and S. Das Sarma), Phys. Rev. Lett. **102**, 057601 (2009). arXiv:0809.0003
112. Collective Modes of the Massless Dirac Plasma (S. Das Sarma and E.H. Hwang), Phys. Rev. Lett. **102**, 206412 (2009). arXiv:0902.3822
113. Splitting of Majorana-Fermion Modes Due to Intervortex Tunneling in a p_x+ip_y Superconductor (M. Cheng, R.M. Lutchyn, V.M. Galitski, and S. Das Sarma), Phys. Rev. Lett. **103**, 107001 (2009). arXiv:0905.0035
114. Generic New Platform for Topological Quantum Computation Using Semiconductor Heterostructures (J.D. Sau, R.M. Lutchyn, S. Tewari, and S. Das Sarma), Phys. Rev. Lett. **104**, 040502 (2010). arXiv:0907.2239
115. Predicted Mobility Edges in One-Dimensional Incommensurate Optical Lattices: An Exactly Solvable Model of Anderson Localization (J. Biddle and S. Das Sarma), Phys. Rev. Lett. **104**, 070601 (2010). arXiv:0910.4390
116. Fractional Quantum Hall State at $\nu=5/2$ and the Moore-Read Pfaffian (M. Storni, R.H. Morf, and S. Das Sarma), Phys. Rev. Lett. **104**, 076803 (2010). arXiv:0812.2691
117. Colossal Magnetoresistance in an Ultraclean Weakly Interacting 2D Fermi Liquid (X. Zhou, B.A. Piot, M. Bonin, L.W. Engel, S. Das Sarma, G. Gervais, L.N. Pfeiffer, and K.W. West), Phys. Rev. Lett. **104**, 216801 (2010). arXiv:1003.5920
118. Interacting Hofstadter Spectrum of Atoms in an Artificial Gauge Field (S. Powell, R. Barnett, R. Sensarma, and S. Das Sarma), Phys. Rev. Lett. **104**, 255303 (2010). arXiv:1004.0701
119. Majorana Fermions and a Topological Phase Transition in Semiconductor-Superconductor Heterostructures (R.M. Lutchyn, J.D. Sau, and S. Das Sarma), Phys. Rev. Lett. **105**, 077001 (2010). arXiv:1002.4033
120. Electron Spin Decoherence in Isotope-Enriched Silicon (W.M. Witzel, M.S. Carroll, A. Morello, L. Cywinski, and S. Das Sarma), Phys. Rev. Lett. **105**, 187602 (2010). arXiv:1008.2382

121. Search for Majorana Fermions in Multiband Semiconductor Nanowires (R.M. Lutchyn, T.D. Stanescu, and S. Das Sarma), Phys. Rev. Lett. **106**, 127001 (2011). arXiv:1008.0629
122. Nearly Flatbands with Nontrivial Topology (K. Sun, Z. Gu, H. Katsura, and S. Das Sarma), Phys. Rev. Lett. **106**, 236803 (2011). arXiv:1012.5864
123. Quantum-Classical Crossover and Apparent Metal-Insulator Transition in a Weakly Interacting 2D Fermi Liquid (X. Zhou, B. Schmidt, C. Proust, G. Gervais, L.N. Pfeiffer, K.W. West, and S. Das Sarma), Phys. Rev. Lett. **107**, 086804 (2011). arXiv:1103.3496
124. Inhomogeneous Electronic Structure, Transport Gap, and Percolation Threshold in Disordered Bilayer Graphene (E. Rossi and S. Das Sarma), Phys. Rev. Lett. **107**, 155502 (2011). arXiv:1103.3012
125. Theory of 2D Transport in Graphene for Correlated Disorder (Q. Li, E.H. Hwang, and S. Das Sarma), Phys. Rev. Lett. **107**, 156601 (2011). arXiv:1104.0667
126. Avoidance of Majorana Resonances in Periodic Topological Superconductor-Nanowire Structures (J.D. Sau, C.H. Lin, H.Y. Hui, and S. Das Sarma), Phys. Rev. Lett. **108**, 067001 (2012). arXiv:1103.2770
127. Valley-Based Noise-Resistant Quantum Computation Using Si Quantum Dots (D. Culcer, A.L. Saraiva, B. Koiller, X. Hu, and S. Das Sarma), Phys. Rev. Lett. **108**, 126804 (2012). arXiv:1107.0003
128. Analytically Solvable Driven Time-Dependent Two-Level Quantum Systems (E. Barnes and S. Das Sarma), Phys. Rev. Lett. **109**, 060401 (2012). arXiv:1206.0297
129. Universal Conductance Fluctuations in Dirac Materials in the Presence of Long-Range Disorder (E. Rossi, J.H. Bardarson, M.S. Fuhrer, and S. Das Sarma), Phys. Rev. Lett. **109**, 096801 (2012). arXiv:1110.5652
130. Nonperturbative Master Equation Solution of Central Spin Dephasing Dynamics (E. Barnes, L. Cywinski, and S. Das Sarma), Phys. Rev. Lett. **109**, 140403 (2012). arXiv:1203.6355
131. Interplay of Disorder and Interaction in Majorana Quantum Wires (A.M. Lobos, R.M. Lutchyn, and S. Das Sarma), Phys. Rev. Lett. **109**, 146403 (2012). arXiv:1202.2837
132. Intrinsic Electron-Phonon Resistivity of Bi_2Se_3 in the Topological Regime (D. Kim, Q. Li, P. Syers, N.P. Butch, J. Paglione, S. Das Sarma, and M.S. Fuhrer), Phys. Rev. Lett. **109**, 166801 (2012). arXiv:1205.5554
133. To Close or Not to Close: The Fate of the Superconducting Gap Across the Topological Quantum Phase Transition in Majorana-Carrying Semiconductor Nanowires (T.D.

- Stanescu, S. Tewari, J.D. Sau, and S. Das Sarma), Phys. Rev. Lett. **109**, 266402 (2012). arXiv:1206.0013
134. Noise-Resistant Control for a Spin Qubit Array (J.P. Kestner, X. Wang, L.S. Bishop, E. Barnes, and S. Das Sarma), Phys. Rev. Lett. **110**, 140502 (2013). arXiv:1301.0826
135. Topological Zero-Energy Modes in Gapless Commensurate Aubry-Andre-Harper Models (S. Ganeshan, K. Sun, and S. Das Sarma), Phys. Rev. Lett. **110**, 180403 (2013). arXiv:1301.5639
136. Soft Superconducting Gap in Semiconductor Majorana Nanowires (S. Takei, B.M. Fregoso, H.Y. Hui, A.M. Lobos, and S. Das Sarma), Phys. Rev. Lett. **110**, 186803 (2013). arXiv:1211.1029
137. Exact Classification of Landau-Majorana-Stuckelberg-Zener Resonances by Floquet Determinants (S. Ganeshan, E. Barnes, and S. Das Sarma), Phys. Rev. Lett. **111**, 130405 (2013). arXiv:1307.1704
138. Coarsening Dynamics of Binary Bose Condensates (J. Hofmann, S.S. Natu, and S. Das Sarma), Phys. Rev. Lett. **113**, 095702 (2014). arXiv:1403.1284
139. Why Does Graphene Behave as a Weakly Interacting System? (J. Hofmann, E. Barnes, and S. Das Sarma), Phys. Rev. Lett. **113**, 105502 (2014). arXiv:1405.7036
140. Nearest Neighbor Tight Binding Models with an Exact Mobility Edge in One Dimension (S. Ganeshan, J.H. Pixley, and S. Das Sarma), Phys. Rev. Lett. **114**, 146601 (2015). arXiv:1411.7375
141. Damping of Long-Wavelength Collective Modes in Spinor Bose-Fermi Mixtures (J.H. Pixley, X.P. Li, and S. Das Sarma), Phys. Rev. Lett. **114**, 225303 (2015). arXiv:1501.05015
142. Strongly Metallic Electron and Hole 2D Transport in an Ambipolar Si-Vacuum Field Effect Transistor (B. Hu, M.M. Yazdanpanah, B.E. Kane, E.H. Hwang, and S. Das Sarma), Phys. Rev. Lett. **115**, 036801 (2015). arXiv:1502.02956
143. Anderson Localization and the Quantum Phase Diagram of Three Dimensional Disordered Dirac Semimetals (J.H. Pixley, P. Goswami, and S. Das Sarma), Phys. Rev. Lett. **115**, 076601 (2015). arXiv:1502.07778
144. Many-Body Localization and Quantum Nonergodicity in a Model with a Single-Particle Mobility Edge (X.P. Li, S. Ganeshan, J.H. Pixley, and S. Das Sarma), Phys. Rev. Lett. **115**, 186601 (2015). arXiv:1504.00016

II. Rapid Communications in Physical Review A, B, E

1. Temperature Dependent Many-Body Effects on Electronic Properties of Space-Charge Layers (S. Das Sarma and B. Vinter) Phys. Rev. B (Rapid Commun.) **23**, 6832 (1981).
2. Polaron Effective Mass in GaAs Heterostructure (S. Das Sarma) Phys. Rev. B (Rapid Commun.) **27**, 2590 (1983).
3. Many-Body Correlation Effects on the (110) and (111) Silicon Inversion Layers (S. Das Sarma and B. Vinter), Phys. Rev. B (Rapid Commun.) **28**, 3639 (1983).
4. Quantum Size Effects on the Plasma Dispersion in Quasi-Two Dimensional Electron Systems, (S. Das Sarma), Phys. Rev. B (Rapid Commun.) **29**, 2334 (1984).
5. Band Nonparabolicity Effects on Weak Coupling Polarons in Compound Semiconductors (S. Das Sarma and B.A. Mason), Phys. Rev. B (Rapid Commun.) **31**, 1177 (1985).
6. Screening of Polar Interaction in Quasi-Two Dimensional Semiconductor Microstructures (S. Das Sarma and B.A. Mason), Phys. Rev. B (Rapid Commun.) **31**, 5536 (1985).
7. Screening and Elementary Excitations in Narrow Channel Semiconductor Microstructures (S. Das Sarma and W.Y. Lai), Phys. Rev. B (Rapid Commun.) **32**, 1401 (1985).
8. Effect of a Charged Impurity on the Fractional Quantum Hall Effect: An Exact Numerical Study (F.C. Zhang, V.Z. Vulovic, Y. Guo, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **32**, 6920 (1985).
9. Single-Particle Relaxation Time versus Scattering Time in an Impure Electron Gas (S. Das Sarma and F. Stern), Phys. Rev. B (Rapid Commun.) **32**, 8442 (1985).
10. Excitation Gap in the Fractional Quantum Hall Effect: Finite Layer Thickness Correction (F.C. Zhang and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **33**, 2903 (1986).
11. Ground-State Variational Wavefunction for the Quasi-One Dimensional Semiconductor Quantum Wire (W.Y. Lai and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **33**, 8874 (1986).
12. Proposed Experiment for the Observation of Surface Plasmons in Semiconductor Superlattices (J.K. Jain and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **35**, 918 (1987).
13. Calculated Transport Properties of Quasi-One Dimensional Inversion Lines (S. Das Sarma and X.C. Xie), Phys. Rev. B (Rapid Commun.) **35**, 9875 (1987).

14. Transition from One- to Two-Dimensional Fluctuating Variable Range Hopping Conduction in Microstructures (X.C. Xie and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **36**, 4566 (1987).
15. Inelastic Phase Coherence Time in Thin Metal Films (D. Belitz and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **36**, 7701 (1987).
16. Model-Potential Based Simulation of Si(100) Surface Reconstruction (K.E. Khor and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **36**, 7733 (1987).
17. Aharonov-Bohm Effect in the Hopping Conduction of a Small Ring (X.C. Xie and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **36**, 9326 (1987).
18. Epitaxial Growth of $\text{Ge}_x\text{Si}_{1-x}$ on Si: A Direct Monte Carlo Simulation (A. Kobayashi and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **37**, 1039 (1987).
19. Band-Gap Renormalization in Quasi-Two Dimensional Systems by Many-Body Electron-Electron and Electron-Phonon Interactions (S. Das Sarma, R. Jalabert, and S.R.E. Yang), Phys. Rev. B (Rapid Commun.) **39**, 5516 (1989).
20. Many-Polaron Interaction Effects in Two Dimensions (R. Jalabert and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **39**, 5542 (1989).
21. Calculated Heat Capacity and Magnetization of Two Dimensional Electron Systems (Q. Li, X.C. Xie, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **40**, 1381 (1989).
22. Collective Excitation Spectra of One Dimensional Electron Systems (Q. Li and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **40**, 5860 (1989).
23. Elastic Scattering in Resonant Tunneling Systems (H.A. Fertig and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **40**, 7410 (1989).
24. Parabolic Quantum Well Self-Consistent Electronic Structure in a Longitudinal Magnetic Field: Subband Depopulation (M. Stopa and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **40**, 10048 (1989).
25. Systematic Approach to Developing Empirical Potentials for Compound Semiconductors (T. Ito, K.E. Khor, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **41**, 3893 (1990).
26. Plasmon Excitations in One Dimensional Lateral Quantum Wire Superlattices (Q. Li and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **41**, 10268 (1990).
27. Low Temperature Energy Relaxation in GaAs/Al_xGa_{1-x}As Heterojunctions (T. Kawamura, S. Das Sarma, R. Jalabert, and J.K. Jain), Phys. Rev. B (Rapid Commun.) **42**,

5407 (1990).

28. Cyclotron Effective Mass Studies of Wide Parabolic Quantum Wells (K. Karrai, M. Stopa, X. Ying, H.D. Drew, S. Das Sarma, and M. Shayegan), Phys. Rev. B (Rapid Commun.) **42**, 9732 (1990).
29. Destruction of Fractional Quantum Hall Effect in Thick Systems (S. He, F.C. Zhang, X.C. Xie, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **42**, 11376 (1990).
30. Quantum Hall Effect in Double Quantum Well Systems (S. He, X.C. Xie, S. Das Sarma, and F.C. Zhang), Phys. Rev. B (Rapid Commun.) **43**, 9339 (1991).
31. Orientation Dependence of Growth Quality in Strained Layer Superlattices: A Model Potential Study (K.E. Khor and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **43**, 9992 (1991).
32. Many-Body Vertex Corrections on Quasiparticle Properties of Two Dimensional Electron Systems (I.K. Marmorkos and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **44**, 3451 (1991).
33. Quantum Theory of Infrared Absorption in a Grating-Coupled Two Dimensional Electron Gas (D.Z. Liu and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **44**, 9122 (1991).
34. Hot Electron Relaxation in Semiconductor Quantum Wires: Bulk LO-Phonon Emission (V. Campos and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **45**, 3898 (1992).
35. Limiting Thickness versus Epitaxial Growth Temperature in Molecular Beam Epitaxy (S. Das Sarma and P.I. Tamborenea), Phys. Rev. B (Rapid Commun.) **46**, 1925 (1992).
36. Surface Diffusion Length under Kinetic Growth Conditions (S.V. Ghaisas and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **46**, 7308 (1992).
37. Scaling Behavior of the Activated Conductivity in a Quantum Hall Liquid (S. Das Sarma and D.Z. Liu), Phys. Rev. B (Rapid Commun.) **48**, 9166 (1993).
38. Raman Scattering Spectra of Elementary Electronic Excitations in Coupled Double Quantum Well Structures (P.I. Tamborenea and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **49**, 16821 (1994).
39. Dynamic Magnetoconductance Fluctuations and Oscillations in Mesoscopic Wires and Rings (D.Z. Liu, B.Y.K. Hu, C.A. Stafford, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **50**, 5799 (1994).
40. Dynamical Renormalization Group Analysis of Fourth-Order Conserved Growth Nonlinearities (S. Das Sarma and R. Kotlyar), Phys. Rev. E. (Rapid Commun.) **56**, R4275

(1994).

41. Laughlin Liquid-Wigner Solid Transition at High Density in Wide Quantum Wells (R. Price, X. Zhu, S. Das Sarma, and P.M. Platzman), Phys. Rev. B (Rapid Commun.) **51**, 2017 (1995).
42. Observation of Below Gap Plasmon Excitations in Superconducting YBa₂Cu₃O₇ Films (F.J. Dunmore, D.Z. Liu, H.D. Drew, S. Das Sarma, Q. Li, and D.B. Fenner), Phys. Rev. B (Rapid Commun.) **52**, R731 (1995).
43. Collective Modes and their Coupling to Pair-Breaking Excitations in Layered d-wave Superconductors (E.H. Hwang and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **52**, R7010 (1995).
44. Plasmon-Phonon Coupling in One-Dimensional Semiconductor Quantum-Wire Structures (E.H. Hwang and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **52**, R8668 (1995).
45. Infrared Singularities in Interface Growth Models (J.K. Bhattacharjee, S. Das Sarma, and R. Kotlyar), Phys. Rev. E (Rapid Commun.) **53**, R1313 (1996).
46. Controlled Instability and Multiscaling in Models of Epitaxial Growth (C. Dasgupta, S. Das Sarma, and J.M. Kim) Phys. Rev. E. (Rapid Commun.) **54**, R4552 (1996).
47. Persistent Current in an Artificial Quantum Dot Molecule (R. Kotlyar and S. Das Sarma) Phys. Rev. B (Rapid Commun.) **55**, R10205 (1997).
48. Extended Self-Similarity in Kinetic Surface Roughening (A. Kundagrami, C. Dasgupta, P. Punyindu, and S. Das Sarma) Phys. Rev. E (Rapid Commun.) **57**, R3703 (1998)
49. Noise Reduction and Universality in Limited Mobility Models of Nonequilibrium Growth (P. Punyindu and S. Das Sarma) Phys. Rev. E (Rapid Commun.) **57**, R4863 (1998).
50. Band Gap Renormalization in Photoexcited Semiconductor Quantum Wire Structures in the *GW* Approximation (E.H. Hwang and S. Das Sarma) Phys. Rev. B (Rapid Commun.) **58**, R1738 (1998).
51. Correlated Charge Polarization in a Chain of Coupled Quantum Dots (R. Kotlyar, C.A. Stafford, and S. Das Sarma) Phys. Rev. B (Rapid Commun.) **58**, R1746 (1998).
52. Sign-Time Distributions for Interface Growth (Z. Toroczkai, T.J. Newman, and S. Das Sarma), Phys. Rev. E (Rapid Commun.) **60**, R1115 (1999).
53. Nonuniversality in Mound Formation during Semiconductor Growth (G. Lengel, R.J. Phaneuf, E.D. Williams, S. Das Sarma, W. Beard, and F.G. Johnson), Phys. Rev. B

- (Rapid Commun.) **60**, R8469 (1999).
54. Spin-Polarized Transport and Andreev Reflection in Semiconductor/Superconductor Hybrid Structures (I. Zutic and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **60**, R16322 (1999). cond-mat/9909002
 55. Calculated Temperature-Dependent Resistance in Low-Density Two-Dimensional Hole Gases in GaAs Heterostructures (S. Das Sarma and E.H. Hwang), Phys. Rev. B (Rapid Commun.) **61**, R7838 (2000). cond-mat/0001057
 56. Spin Symmetry Breaking in Bilayer Quantum Hall Systems (E. Demler, E.H. Kim, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **61**, R10567 (2000). cond-mat/9907107
 57. Spin Injection through the Depletion Layer: A Theory of Spin-Polarized p - n Junctions and Solar Cells (I. Zutic, J. Fabian, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **64**, 121201 (2001). cond-mat/0103473
 58. Enhancing T_c in Ferromagnetic Semiconductors (S. Das Sarma, E.H. Hwang, and D.J. Priour, Jr.) Phys. Rev. B (Rapid Commun.) **70**, 161203(R) (2004). cond-mat/0403059
 59. Temperature Dependent Spin Susceptibility in a Two-Dimensional Metal (V.M. Galitski, A.V. Chubukov, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **71**, 201302(R) (2005). cond-mat/0501132
 60. Quantum Theory of Spectral Diffusion Induced Electron Spin Decoherence (W.M. Witzel, R. de Sousa, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **72**, 161306(R) (2005). cond-mat/0501503
 61. Spin Accumulation in the Extrinsic Spin Hall Effect (W.K. Tse, J. Fabian, I. Zutic, and S. Das Sarma) Phys. Rev. B (Rapid Commun.) **72**, 241303(R) (2005). cond-mat/0508076
 62. Cold Atom Optical Lattices as Quantum Analog Simulators for Aperiodic One-Dimensional Localization without Disorder (V.W. Scarola and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **73**, 041609(R) (2006). cond-mat/0506415
 63. Searching for a Supersolid in Cold Atom Optical Lattices (V.W. Scarola, E. Demler, and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **73**, 051601(R) (2006). cond-mat/0602319
 64. Hall Coefficient and Magnetoresistance of Two-Dimensional Spin-Polarized Electron Systems (E.H. Hwang and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **73**, 121309(R) (2006). cond-mat/0601232
 65. Proposal to Stabilize and Detect Half-Quantum Vortices in Strontium Ruthenate Thin Films: Non-Abelian Braiding Statistics of Vortex Matter in a $p_x + ip_y$ Superconductor (S. Das Sarma, C. Nayak, and S. Tewari), Phys. Rev. B (Rapid Commun.) **73**, 220502(R)

(2006). cond-mat/0510553

66. Magnetic-Field-Assisted Manipulation and Entanglement of Si Spin Qubits (M.J. Calderon, B. Koiller, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **74**, 081302(R) (2006). cond-mat/0602597
67. Initializing a Quantum Register from Mott-Insulator States in Optical Lattices (C. Zhang, V.W. Scarola, and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **75**, 060301(R) (2007). quant-ph/0701172
68. Many-Body Interaction Effects in Doped and Undoped Graphene: Fermi Liquid versus Non-Fermi Liquid (S. Das Sarma, E.H. Hwang, and W.K. Tse), Phys. Rev. B (Rapid Commun.) **75**, 121406(R) (2007). cond-mat/0610581
69. Proposal for Electron Spin Relaxation Measurements Using Double-Donor Excited States in Si Quantum Computer Architectures (M.J. Calderon, B. Koiller, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **75**, 161304(R) (2007). cond-mat/0610089
70. Theory of Coulomb Drag in Graphene (W.K. Tse, B.Y.K. Hu, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **76**, 081401(R) (2007). arXiv:0704.3209
71. Concatenated Dynamical Decoupling in a Solid-State Spin Bath (W.M. Witzel and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **76**, 241303(R) (2007). arXiv:0707.1037
72. Activation Gaps of Fractional Quantum Hall Effect in the Second Landau Level (H.C. Choi, W. Kang, S. Das Sarma, L.N. Pfeiffer, and K.W. West), Phys. Rev. B (Rapid Commun.) **77**, 081301(R) (2008). arXiv: 0707.0236
73. Quasiparticle Spectral Function in Doped Graphene: Electron-Electron Interaction Effects in ARPES (E.H. Hwang and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **77**, 081412(R) (2008). arXiv:0708.1133
74. Boson Hubbard Model with Weakly Coupled Fermions (R.M. Lutchyn, S. Tewari, and S. Das Sarma), Phys. Rev. B. (Rapid Commun.) **78**, 220504(R) (2008). arXiv:0806.2865
75. Loss of Superfluidity by Fermions in the Boson Hubbard Model on an Optical Lattice (R.M. Lutchyn, S. Tewari, and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **79**, 011606(R) (2009). arXiv:0812.0815
76. Quantum Phase Diagram of Fermion Mixtures with Population Imbalance in One-Dimensional Optical Lattices (B. Wang, H.D. Chen, and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **79**, 051604(R) (2009). arXiv:0901.4896
77. Crossover from Quantum to Boltzmann Transport in Graphene (S. Adam, P.W. Brouwer, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **79**, 201404(R) (2009).

arXiv:0811.0609

78. Localization in One-Dimensional Incommensurate Lattices Beyond the Aubry-Andre Model (J. Biddle, B. Wang, D.J. Priour, Jr., and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **80**, 021603(R) (2009). arXiv:0907.0252
79. Physical Mechanisms of Interface-Mediated Intervalley Coupling in Si (A.L. Saraiva, M.J. Calderon, X. Hu, S. Das Sarma, and B. Koiller), Phys. Rev. B (Rapid Commun.) **80**, 081305(R) (2009). arXiv:0901.4702
80. Valley-Dependent Many-Body Effects in Two-Dimensional Semiconductors (S. Das Sarma, E.H. Hwang, and Qi Li), Phys. Rev. B (Rapid Commun.) **80**, 121303(R) (2009). arXiv:0904.2622
81. Interaction-Tuned Compressible-to-Incompressible Phase Transitions in Quantum Hall Systems (Z. Papic, N. Regnault, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **80**, 201303(R) (2009). arXiv:0907.4603
82. Signatures of Klein Tunneling in Disordered Graphene p - n - p Junctions (E. Rossi, J.H. Bardarson, P.W. Brouwer, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **81**, 121408(R) (2010). arXiv:0908.3674
83. Theory of Carrier Transport in Bilayer Graphene (S. Das Sarma, E.H. Hwang, and E. Rossi), Phys. Rev. B (Rapid Commun.) **81**, 161407(R) (2010). arXiv:0912.0403
84. Proximity Effect at the Superconductor-Topological Insulator Interface (T.D. Stanescu, J.D. Sau, R.M. Lutchyn, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **81**, 241310(R) (2010). arXiv:1002.0842
85. Bose-Fermi Solid and Its Quantum Melting in a One-Dimensional Optical Lattice (B. Wang, D.W. Wang, and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **82**, 021602(R) (2010). arXiv:1004.5129
86. Insulating Behavior in Metallic Bilayer Graphene: Interplay between Density Inhomogeneity and Temperature (E.H. Hwang and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **82**, 081409(R) (2010). arXiv:1006.1897
87. Antiferromagnetic Spinor Condensates are Quantum Rotors (R. Barnett, J.D. Sau, and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **82**, 031602(R) (2010). arXiv:1003.2634
88. Bosons in a Double-Well Potential: Understanding the Interplay Between Disorder and Interaction in a Simple Model (Q. Zhou and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **82**, 041601(R) (2010). arXiv:1003.4059

89. Superconducting Order Parameter for the Even-Denominator Fractional Quantum Hall Effect (H. Lu, S. Das Sarma, and K. Park), Phys. Rev. B (Rapid Commun.) **82**, 201303(R) (2010). arXiv:1008.1587
90. Spontaneous Interlayer Superfluidity in Bilayer Systems of Cold Polar Molecules (R.M. Lutchyn, E. Rossi, and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **82**, 061604(R) (2010). arXiv:0911.1378
91. Conductivity of Graphene on Boron Nitride Substrates (S. Das Sarma and E.H. Hwang), Phys. Rev. B (Rapid Commun.) **83**, 121405(R) (2011). arXiv:1101.0299
92. Chiral Rashba Spin Textures in Ultracold Fermi Gases (J.D. Sau, R. Sensarma, S. Powell, I.B. Spielman, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **83**, 140510(R) (2011). arXiv:1012.3170
93. Generic Hubbard Model Description of Semiconductor Quantum-Dot Spin Qubits (S. Yang, X. Wang, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **83**, 161301(R) (2011). arXiv:1101.3311
94. Chirality-Dependent Phonon-Limited Resistivity in Multiple Layers of Graphene (H. Min, E.H. Hwang, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **83**, 161404(R) (2011). arXiv:1011.0741
95. Scattering Mechanisms in a High-Mobility Low-Density Carbon-Doped (100) GaAs Two-Dimensional Hole System (J.D. Watson, S. Mondal, G.A. Csathy, M.J. Manfra, E.H. Hwang, S. Das Sarma, L.N. Pfeiffer, and K.W. West), Phys. Rev. B (Rapid Commun.) **83**, 241305(R) (2011). arXiv:1105.2808
96. Interaction-Induced Excited-Band Condensate in a Double-Well Optical Lattice (Q. Zhou, J.V. Porto, and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **84**, 031607(R) (2011). arXiv:1105.0012
97. Optical and Transport Gaps in Gated Bilayer Graphene (H. Min, D.S.L. Abergel, E.H. Hwang, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **84**, 041406(R) (2011). arXiv:1104.0938
98. Quasiparticles, Plasmarons, and Quantum Spectral Function in Bilayer Graphene (R. Sensarma, E.H. Hwang, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **84**, 041408(R) (2011). arXiv:1102.1427
99. Momentum-Resolved Optical Lattice Modulation Spectroscopy for Bosons in Optical Lattices (R. Sensarma, K. Sengupta, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **84**, 081101(R) (2011). arXiv:1102.0780

100. Low-Noise Conditional Operation of Singlet-Triplet Coupled Quantum Dot Qubits (S. Yang and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **84**, 121306(R) (2011). arXiv:1107.3827
101. Mott-Insulating Phases and Magnetism of Fermions in a Double-Well Optical Lattice (X. Wang, Q. Zhou, and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **84**, 061603(R) (2011). arXiv:1108.4409
102. Resistivity Saturation in a Weakly Interacting Two-Dimensional Fermi Liquid at Intermediate Temperatures (X. Zhou, B. Schmidt, L.W. Engel, G. Gervais, L.N. Pfeiffer, K.W. West, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **85**, 041310(R) (2012). arXiv:1111.0011
103. Quench-Induced Mott-Insulator-to-Superfluid Quantum Phase Transition (J.D. Sau, B. Wang, and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **85**, 013644(R) (2012). arXiv:1105.1375
104. Momentum Relaxation in a Semiconductor Proximity-Coupled to a Disordered S-Wave Superconductor: Effect of Scattering on Topological Superconductivity (R.M. Lutchyn, T.D. Stanescu, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **85**, 140513(R) (2012). arXiv:1110.5643
105. Polarizability and Screening in Chiral Multilayer Graphene (H. Min, E.H. Hwang, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **86**, 081402(R) (2012). arXiv:1202.2132
106. Density Fluctuation Effects on the Exciton Condensate in Double-Layer Graphene (D.S.L. Abergel, R. Sensarma, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **86**, 161412(R) (2012). arXiv:1206.0741
107. Splitting of the Zero-Bias Conductance Peak as Smoking Gun for the Existence of the Majorana Mode in a Superconductor-Semiconductor Nanowire (S. Das Sarma, J.D. Sau, and T.D. Stanescu), Phys. Rev. B (Rapid Commun.) **86**, 220506(R) (2012). arXiv:1211.0539
108. Topological Flat Band Models with Arbitrary Chern Numbers (S. Yang, Z.C. Gu, K. Sun, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **86**, 241112(R) (2012). arXiv:1205.5792
109. Two-Dimensional Compressibility of Surface States on Three-Dimensional Topological Insulators (D.S.L. Abergel and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **87**, 041407(R) (2013). arXiv:1210.7241
110. Superconducting Proximity Effect in Semiconductor Nanowires (T.D. Stanescu and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **87**, 180504(R) (2013). arXiv:1303.1187

111. Absence of Damping of Low Energy Excitations in a Quasi-2D Dipolar Bose Gas (S.S. Natu and S. Das Sarma), Phys. Rev. A (Rapid Commun.) **88**, 031604 (R) (2013). arXiv:1307.2910
112. Many-Body Effects and Possible Superconductivity in the Two-Dimensional Metallic Surface States of Three-Dimensional Topological Insulators (S. Das Sarma and Q. Li), Phys. Rev. B (Rapid Commun.) **88**, 081404(R) (2013). arXiv:1305.3605
113. Dynamically Corrected Gates for an Exchange-Only Qubit (G.T. Hickman, X. Wang, J.P. Kestner, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **88**, 161303(R) (2013). arXiv:1303.6950
114. Electrical Detection of Topological Quantum Phase Transitions in Disordered Majorana Nanowires (B.M. Fregoso, A.M. Lobos, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **88**, 180507(R) (2013). arXiv:1307.3505
115. Ferromagnetic Response of a “High-Temperature” Quantum Antiferromagnet (X. Wang, R. Sensarma, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **89**, 121118(R) (2014). arXiv:1308.1091
116. Short-Range Disorder Effects on Electronic Transport in Two-Dimensional Semiconductor Structures (S. Das Sarma and E.H. Hwang), Phys. Rev. B (Rapid Commun.) **89**, 121413(R) (2014). arXiv:1401.0183
117. Critical Integer Quantum Hall Topology and the Integrable Maryland Model as a Topological Quantum Critical Point (S. Ganeshan, K. Kechedzhi, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **90**, 041405(R) (2014). arXiv:1311.0882
118. Helical Order in One-Dimensional Magnetic Atom Chains and Possible Emergence of Majorana Bound States (Y. Kim, M. Cheng, B. Bauer, R.M. Lutchyn, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **90**, 060401(R) (2014). arXiv:1401.7048
119. An Apparent Metal-Insulator Transition in High-Mobility Two-Dimensional InAs Heterostructures (J. Shabani, S. Das Sarma, and C.J. Palmstrom), Phys. Rev. B (Rapid Commun.) **90**, 161303(R) (2014). arXiv:1407.7541
120. Chiral Symmetry Breaking and the Quantum Hall Effect in Monolayer Graphene (B. Roy, M.P. Kennett, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **90**, 201409(R) (2014). arXiv:1406.5184
121. Diffusive Quantum Criticality in Three-Dimensional Disordered Dirac Semimetals (B. Roy and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **90**, 241112(R) (2014). arXiv:1407.7026

122. Plasmon Signature in Dirac-Weyl Liquids (J. Hofmann and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **91**, 241108(R) (2015). arXiv:1501.04636
123. Exponential Orthogonality Catastrophe in Single-Particle and Many-Body Localized Systems (D.L. Deng, J.H. Pixley, X.P. Li, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **92**, 220201(R) (2015). arXiv:1508.01270
124. Optical Evidence for a Weyl Semimetal State in Pyrochlore $\text{Eu}_2\text{Ir}_2\text{O}_7$ (A.B. Sushkov, J. Hofmann, G.S. Jenkins, J. Ishikawa, S. Nakatsuji, S. Das Sarma, and H.D. Drew), Phys. Rev. B (Rapid Commun.) **92**, 241108(R) (2015). arXiv:1507.01038
125. Interaction-driven exotic quantum phases in spin-orbit-coupled spin-1 bosons (J. H. Pixley, Stefan S. Natu, I. B. Spielman, and S. Das Sarma), Phys. Rev. B (Rapid Commun.) **93**, 081101(R) (2016). arXiv:1509.00005
126. Surface plasmon polaritons in topological Weyl semimetals (Johannes Hofmann and Sankar Das Sarma), Phys. Rev. B (Rapid Commun.) **93**, 241402(R) (2016). arXiv:1601.07524

III. Articles in Physical Review A, B, E, X

1. Temperature Dependence of Many-Body Effects in Inversion Layers (R.K. Kalia, S. Das Sarma, M. Nakayama, and J.J. Quinn) Phys. Rev. B **18**, 5564 (1978).
2. Stress and Temperature Dependence of Subband Structure in Silicon Inversion Layers (S. Das Sarma, R.K. Kalia, M. Nakayama, and J.J. Quinn), Phys. Rev. B **19**, 6397 (1979).
3. Hydrodynamic Model for Linear Response in Jellium Surfaces: Non-Retarded Limit (S. Das Sarma and J.J. Quinn), Phys. Rev. B **20**, 4872 (1979).
4. A Study of Electron-Phonon Interaction and Magneto-Optical Anomalies in Two Dimensions (S. Das Sarma and A. Madhukar), Phys. Rev. B **22**, 2823 (1980).
5. Collective Modes of Spatially Separated Two-Component, Two Dimensional Plasma in Solids (S. Das Sarma and A. Madhukar), Phys. Rev. B **23**, 805 (1981).
6. Two Dimensional Level Broadening in Extreme Quantum Limit (S. Das Sarma) Phys. Rev. B **23**, 4592 (1981).
7. Effect of Impurity Scattering on the Distribution Function in Two Dimensional Fermi Systems (S. Das Sarma and B. Vinter) Phys. Rev. B **24**, 549 (1981).
8. A Study of Ideal Vacancy Induced Neutral Deep Levels in III-V Compound Semiconductors and Their Ternary Alloys (S. Das Sarma and A. Madhukar), Phys. Rev. B

- 24**, 2051 (1981).
9. Final State Interaction and Intersubband Spectroscopy in Silicon Inversion Layers (S. Das Sarma, R.K. Kalia, M. Nakayama, and J.J. Quinn) Phys. Rev. B **24**, 7181 (1981).
 10. Collective Excitations of Semiconductor Superlattices (S. Das Sarma and J.J. Quinn) Phys. Rev. B **25**, 7603 (1982).
 11. Electronic Specific Heat Anomalies in Two Dimensional Systems (D.R. Grempel and S. Das Sarma) Phys. Rev. B **25**, 7826 (1982).
 12. Electronic Structure of Semiconductor Surface Inversion Layers at Finite Temperatures: The (100) Si -SiO₂ System (S. Das Sarma and B. Vinter) Phys. Rev. B **26**, 960 (1982).
 13. Electrodynamic Response of a Bounded Electron Gas in Hydrodynamic Formalism: Theory and Applications (S. Das Sarma) Phys. Rev. B **26**, 6559 (1982).
 14. Comments on a Time Dependent Hartree-Fock Formalism for the Dielectric Function (S. Das Sarma and W. Hanke) Phys. Rev. B **28**, 1134 (1983).
 15. Dispersion of Magnetoplasmons in Layered Systems (S. Das Sarma), Phys. Rev. B **28**, 2240 (1983).
 16. Peierls Instability in Degenerate Semiconductors under Strong External Magnetic Fields (A. Bardasis and S. Das Sarma), Phys. Rev. B **29**, 780 (1984).
 17. Electron Energy Levels in GaAs-Ga_{1-x}A_xAs Heterojunctions (F. Stern and S. Das Sarma), Phys. Rev. B **30**, 840 (1984).
 18. Quasiparticle Spectrum of a Fröhlich Polaron in Two Dimensions (B.A. Mason and S. Das Sarma), Phys. Rev. B **31**, 5223 (1985).
 19. Path Integral Study of Localization in the Generalized Polaron Problem (B.A. Mason and S. Das Sarma), Phys. Rev. B **33**, 1412 (1986).
 20. Phonon Emission Rate in Two-Dimensional Semiconductor Microstructures (S. Das Sarma and B.A. Mason), Phys. Rev. B **33**, 1418 (1986).
 21. Theory of Finite Temperature Screening in a Disordered Two-Dimensional Electron Gas (S. Das Sarma), Phys. Rev. B **33**, 5401 (1986).
 22. Phonon-Induced Shift in Shallow Donor Levels of Semiconductor Quantum Structures (B.A. Mason and S. Das Sarma), Phys. Rev. B **33**, 8379 (1986).

23. Plasmons in Aperiodic Structures (S. Das Sarma, A. Kobayashi, R.E. Prange), Phys. Rev. B **34**, 5309 (1986).
24. Plasmon Band Structure in a Lateral Multiwire Semiconductor Superlattice (W.Y. Lai, A. Kobayashi, S. Das Sarma), Phys. Rev. B **34**, 7380 (1986).
25. Plasmon Linewidth in Metals and Semiconductors: A Memory Function Approach (D. Belitz and S. Das Sarma), Phys. Rev. B **34**, 8264 (1986).
26. Theory of Polar Scattering in Semiconductor Quantum Structures (B.A. Mason and S. Das Sarma), Phys. Rev. B **35**, 3890 (1987).
27. Transport Relaxation Time of a Two-Dimensional Electron Gas Due to Scattering by Surface Acoustic Waves (C.E. Leal, I.C.D. Cunha Lima, A. Troper, and S. Das Sarma), Phys. Rev. B **35**, 4095 (1987).
28. Direct Calculation of Interfacial Energetics: Roles of Axial Commensuration and Strain in Epitaxial Growth (A. Kobayashi and S. Das Sarma), Phys. Rev. B **35**, 8042 (1987).
29. Nonlocal Theory for Surface Plasmon Excitation in Simple Metals (S. Das Sarma), Phys. Rev. B **36**, 3026 (1987).
30. Elementary Electronic Excitations in a Quasi-Two Dimensional Electron Gas (J.K. Jain and S. Das Sarma), Phys. Rev. B **36**, 5949 (1987).
31. Dynamical Effects on Phonon Emission in a Polar Electron Gas (S. Das Sarma, A. Kobayashi, and W.Y. Lai), Phys. Rev. B **36**, 8151 (1987).
32. Phonon Renormalization Effects in Quantum Wells (S. Das Sarma and M. Stopa), Phys. Rev. B **36**, 9595 (1987).
33. Conductance Fluctuations in One Dimensional Quasicrystals (S. Das Sarma and X.C. Xie), Phys. Rev. B **37**, 1097 (1987).
34. Hot Electron Relaxation in GaAs Quantum Wells (S. Das Sarma, J.K. Jain, and R. Jalabert), Phys. Rev. B **37**, 1228 (1988).
35. Diffusion of Interacting Particles in a Two Dimensional Periodic Potential (R. Jalabert and S. Das Sarma), Phys. Rev. A **37**, 2614 (1988).
36. Magnetoexcitons in Quasiperiodic Superlattices (S.R. Yang and S. Das Sarma), Phys. Rev. B **37**, 4007 (1988).
37. Effect of Phonon Self-Energy Correction on Hot Electron Relaxation in Two-Dimensional Semiconductor Systems (S. Das Sarma, J.K. Jain, and R. Jalabert), Phys. Rev. B **37**, 4560

(1988).

38. Theory of Hot Electron Energy Loss in Polar Semiconductors: Role of Plasmon-Phonon Coupling (S. Das Sarma, J.K. Jain, and R. Jalabert), Phys. Rev. B **37**, 6290 (1988).
39. Theory of Conductivity in Superlattice Minibands (S.R. Yang and S. Das Sarma), Phys. Rev. B **37**, 10090 (1988).
40. Proposed Universal Interatomic Potential for Elemental Tetrahedrally Bonded Semiconductors (K.E. Khor and S. Das Sarma), Phys. Rev. B **38**, 3318 (1988).
41. Numerical Study of Conductance Fluctuations Based on the Kubo Formula (X.C. Xie and S. Das Sarma), Phys. Rev. B **38**, 3529 (1988).
42. Simulations of Adatom Geometries on the Si(111) Surface Using a Model Potential (K.E. Khor and S. Das Sarma), Phys. Rev. B **39**, 1188 (1989).
43. Dynamical Simulation of Molecular Beam Epitaxial Growth of a Model Crystal (S.M. Paik and S. Das Sarma), Phys. Rev. B **39**, 1224 (1989).
44. Atomistic Growth Mechanisms for the Molecular Beam Epitaxy of a Model System (S.M. Paik and S. Das Sarma), Phys. Rev. B **39**, 9793 (1989).
45. Stochastic Simulation of Molecular Beam Epitaxial Growth of a Model Compound Semiconductor: Effects of Kinetics (T. Kawamura, A. Kobayashi, and S. Das Sarma), Phys. Rev. B **39**, 12723 (1989).
46. Model Potential Study of $(2n+1) \times (2n+1)$ Reconstructions on the Si(111) Surface (K.E. Khor and S. Das Sarma), Phys. Rev. B **40**, 1319 (1989).
47. Quantum Conduction in Narrow Constrictions (S. He and S. Das Sarma), Phys. Rev. B **40**, 3379 (1989).
48. Calculated Shallow Donor-Level Binding Energies in GaAs- A_x Ga $_{1-x}$ As Quantum Wells (M. Stopa and S. Das Sarma), Phys. Rev. B **40**, 8466 (1989).
49. Empirical Potential-Based Si-Ge Interatomic Potential and Its Application to Superlattice Stability (T. Ito, K.E. Khor, and S. Das Sarma), Phys. Rev. B **40**, 9715 (1989).
50. Quasiparticle Properties of a Coupled Two Dimensional Electron-Phonon System (R. Jalabert and S. Das Sarma), Phys. Rev. B **40**, 9723 (1989).

51. Many-Body Theory of Energy Relaxation in an Excited Electron Gas via Optical Phonon Emission (S. Das Sarma, J.K. Jain, and R. Jalabert), Phys. Rev. B **41**, 3561 (1990).
52. Elastic Scattering Effects on Resonant Tunneling in Double Barrier Quantum Well Structures (H. Fertig, S. He, and S. Das Sarma), Phys. Rev. B **41**, 3596 (1990).
53. Inelastic Scattering in a Doped Polar Semiconductor (R. Jalabert and S. Das Sarma), Phys. Rev. B **41**, 3651 (1990).
54. Localization, Mobility Edges, and Metal-Insulator Transition in a Class of One-Dimensional Slowly Varying Deterministic Potentials (S. Das Sarma, S. He, and X.C. Xie), Phys. Rev. B **41**, 5544 (1990).
55. Band Gap Renormalization in Semiconductor Quantum Wells (S. Das Sarma, R. Jalabert, and S.R.E. Yang), Phys. Rev. B **41**, 8288 (1990).
56. Reentrant Localization and a Mobility Gap in Superlattice Minibands (H.A. Fertig and S. Das Sarma), Phys. Rev. B **42**, 1448 (1990).
57. Temperature Dependence of the Low Temperature Mobility in Ultrapure $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ Heterojunctions: Acoustic Phonon Scattering (T. Kawamura and S. Das Sarma), Phys. Rev. B **42**, 3725 (1990).
58. Density of States and Thermodynamic Properties of a Two Dimensional Electron Gas in a Strong External Magnetic Field (X.C. Xie, Q. Li, and S. Das Sarma), Phys. Rev. B **42**, 7132 (1990).
59. The Electrodynamic Response of a Harmonic Atom in an External Magnetic Field (Q.P. Li, K. Karraï, S.K. Yip, S. Das Sarma, and H.D. Drew), Phys. Rev. B **43**, 5151 (1991).
60. Elementary Excitation Spectrum of One Dimensional Electron Systems in Confined Semiconductor Structures: I. Zero Magnetic Field (Q.P. Li and S. Das Sarma), Phys. Rev. B **43**, 11768 (1991).
61. Collective Excitations and Mode Coupling in Layered Superconductors (H.A. Fertig and S. Das Sarma), Phys. Rev. B **44**, 4480 (1991).
62. Elementary Excitation Spectrum of One Dimensional Electron Systems in Confined Semiconductor Structures: II. Finite Magnetic Field (Q.P. Li and S. Das Sarma), Phys. Rev. B **44**, 6277 (1991).
63. Inelastic Scattering in Doped Polar Semiconductors at Finite Temperatures (Y.K. Hu and S. Das Sarma), Phys. Rev. B **44**, 8319 (1991).

64. Phonon Scattering Limited Electron Mobilities in $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ Heterojunctions (T. Kawamura and S. Das Sarma), *Phys. Rev. B* **45**, 3612 (1992).
65. Density Scaling and Optical Properties of Parabolic and Square Quantum Wells (M.P. Stopa and S. Das Sarma), *Phys. Rev. B* **45**, 8526 (1992).
66. Atomistic Numerical Study of Molecular Beam Epitaxial Growth Kinetics (I.K. Marmorkos and S. Das Sarma), *Phys. Rev. B* **45**, 11262 (1992).
67. Magnetoplasmon Excitation Spectrum for Integral Filling Factors in a Two-Dimensional Electron System, (I.K. Marmorkos and S. Das Sarma), *Phys. Rev. B* **45**, 13396 (1992).
68. Elementary Excitations in One-Dimensional Quantum Wires: Exact Equivalence between the Random Phase Approximation and Tomonaga-Luttinger Model (Q.P. Li, S. Das Sarma, and R. Joynt), *Phys. Rev. B* **45**, 13713 (1992).
69. Phonon Confinement Effect on Electron Energy Loss in One Dimensional Quantum Wires (V.B. Campos, S. Das Sarma and M.A. Stroschio), *Phys. Rev. B* **46**, 3849 (1992).
70. Self-Consistent Electronic Structure of Parabolic Semiconductor Quantum Wells: Inhomogeneous Effective Mass and Magnetic Field Effects (M.P. Stopa and S. Das Sarma), *Phys. Rev. B* **47**, 2122 (1993).
71. Low Temperature Thermal Relaxation of Electrons in One Dimensional Nanostructures (S. Das Sarma and V.B. Campos), *Phys. Rev. B* **47**, 3728 (1993).
72. Quantized Hall Effect and Quantum Phase Transitions in Coupled Two-Layer Electron Systems (S. He, S. Das Sarma, and X.C. Xie), *Phys. Rev. B* **47**, 4394 (1993).
73. Quantum Striped Phase at the Edge of a Magnetic Field-Induced Wigner Crystal (H.A. Fertig and S. Das Sarma), *Phys. Rev. B* **47**, 10484 (1993).
74. Many-Body Coupling between Quasiparticle and Collective Excitations in Semiconductor Quantum Wells (S. Das Sarma and I.K. Marmorkos), *Phys. Rev. B* **47**, 16343 (1993).
75. Elementary Excitations in a Finite Fractional Quantum Hall Droplet (X.C. Xie, S. Das Sarma, and S. He), *Phys. Rev. B* **47**, 15942 (1993).
76. Interacting Intersubband Excitations in Parabolic Semiconductor Quantum Wells (I.K. Marmorkos and S. Das Sarma), *Phys. Rev. B* **48**, 1544 (1993).
77. Surface Diffusion Driven Kinetic Growth on One Dimensional Substrates (P.I. Tamborenea and S. Das Sarma), *Phys. Rev. E* **48**, 2599 (1993).

78. Growth in a Restricted Curvature Model (J.M. Kim and S. Das Sarma), Phys. Rev. E **48**, 2575 (1993).
79. Electron-Phonon Interaction, Kohn Anomalies, and Peierls Transition in Semiconductor Quantum Wires (J.R. Senna and S. Das Sarma), Phys. Rev. B **48**, 4552 (1993).
80. Quantum Electron Transport through Narrow Constrictions in Semiconductor Nanostructures (S. He and S. Das Sarma), Phys. Rev. B **48**, 4629 (1993).
81. Many-Body Exchange-Correlation Effects in the Lowest Subband of Semiconductor Quantum Wires (B.Y.K. Hu and S. Das Sarma), Phys. Rev. B **48**, 5469 (1993).
82. Magneto-Optical Spectra of Strongly Correlated Electrons in Non-Parabolic Quantum Dots (X.C. Xie, S. Das Sarma and S. He), Phys. Rev. B **48**, 8454 (1993).
83. Theory of Photoluminescence from a Magnetic Field Induced Two-Dimensional Quantum Wigner Crystal (D.Z. Liu, H.A. Fertig, and S. Das Sarma) Phys. Rev. B **48**, 11184 (1993).
84. Self-Consistent Calculation of Ionized Impurity Scattering in Semiconductor Quantum Wires (B.Y.K. Hu and S. Das Sarma), Phys. Rev. B **48**, 14388 (1993).
85. Kinetic Super-Roughening and Anomalous Dynamic Scaling in Nonequilibrium Growth Models (S. Das Sarma, S.V. Ghaisas, and J.M. Kim), Phys. Rev. E **49**, 122 (1994).
86. LO-Phonon Emission by Hot Electrons in One-Dimensional Semiconductor Quantum Wires (S. Das Sarma and V.B. Campos), Phys. Rev. B **49**, 1867 (1994).
87. Electron-Hole Plasma Driven Phonon Renormalization in Highly Photoexcited GaAs (S. Das Sarma and J.R. Senna), Phys. Rev. B **49**, 2443 (1994).
88. Universal Scaling of Strong-Field Localization in an Integer Quantum Hall Liquid (D.Z. Liu and S. Das Sarma), Phys. Rev. B **49**, 2677 (1994).
89. Correction to the Decay Rate of Nonequilibrium Carrier Distributions due to Scattering-in Processes (B.A. Sanborn, B.Y.K. Hu, and S. Das Sarma), Phys. Rev. B **49**, 7767 (1994).
90. Defect Formation and Crossover Behavior in the Dynamic Scaling Properties of Molecular Beam Epitaxy (S. Das Sarma, C.J. Lanczycki, S.V. Ghaisas, and J.M. Kim), Phys. Rev. B **49**, 10693 (1994).
91. Growth of Ge Thin Films and Islands on Si(001) Surface (K.E. Khor and S. Das Sarma), Phys. Rev. B **49**, 13657 (1994).

92. Collective Excitations in Imperfect Parabolic Quantum Wells with In-Plane Magnetic Fields (P.I. Tamborenea and S. Das Sarma), *Phys. Rev. B* **49**, 16593 (1994).
93. Nonequilibrium Influence of Upward Atomic Mobility in One-Dimensional Molecular Beam Epitaxy (C.J. Lanczycki and S. Das Sarma), *Phys. Rev. E* **50**, 213 (1994).
94. Collective Excitations of a Two-Component One-Dimensional Quantum Plasma Confined in Semiconductor Quantum Wires (E.H. Hwang and S. Das Sarma), *Phys. Rev. B* **50**, 17267 (1994).
95. Ordering in Si-Ge Superlattices (K.E. Khor and S. Das Sarma), *Phys. Rev. B* **50**, 18382 (1994).
96. Dynamical Universality of Nonlinear Conserved Current Equation for Growing Interfaces (J.M. Kim and S. Das Sarma), *Phys. Rev. E* **51**, 1889 (1995).
97. Dynamics of Step Roughening on Vicinal Surfaces (C.J. Lanczycki and S. Das Sarma), *Phys. Rev. B* **51**, 4579 (1995).
98. Energetics of Vicinal Si(111) Steps Using Empirical Potentials (S. Kodiyalam, K.E. Khor, N.C. Bartelt, E.D. Williams, and S. Das Sarma), *Phys. Rev. B* **51**, 5200 (1995).
99. Localization in Semiconductor Quantum Wire Nanostructures (D.Z. Liu and S. Das Sarma), *Phys. Rev. B* **51**, 13821 (1995).
100. Electron Localization in a 2D System with Random Magnetic Flux (D.Z. Liu, X.C. Xie, S. Das Sarma, and S.C. Zhang), *Phys. Rev. B* **52**, 5858 (1995).
101. Scale Invariance and Dynamical Correlations in Growth Models of Molecular Beam Epitaxy (S. Das Sarma, C.J. Lanczycki, R. Kotlyar, and S.V. Ghaisas), *Phys. Rev. E* **53**, 359 (1996).
102. Antiferromagnetic Interactions and the Superconducting Gap Functions (R.J. Radtke, A.I. Liechtenstein, V.M. Yakovenko, and S. Das Sarma), *Phys. Rev. B* **53**, 5137 (1996).
103. Calculated Schwoebel Barriers on Si (111) Steps Using an Empirical Potential (S. Kodiyalam, K.E. Khor, and S. Das Sarma), *Phys. Rev. B* **53**, 9913 (1996).
104. Coulomb Scattering Lifetime of a Two-Dimensional Electron Gas (L. Zheng and S. Das Sarma), *Phys. Rev. B* **53**, 9964 (1996).
105. Dynamical Response of a One Dimensional Quantum Wire Electron System (S. Das Sarma and E.H. Hwang), *Phys. Rev. B* **54**, 1936 (1996).

106. Energy Relaxation of an Excited Electron Gas in Quantum Wires: Many-Body Electron LO-phonon Coupling (L. Zheng and S. Das Sarma), Phys. Rev. B **54**, 2751 (1996).
107. Far From Equilibrium Nonconserved Growth under a Surface Diffusion Bias (C.J. Lanczycki, V. Jejjala, and S. Das Sarma), Phys. Rev. E. **54**, 4755 (1996).
108. Quasiparticle Properties of a Coupled Quantum Wire Electron-Phonon System (E.H. Hwang, B.Y.K. Hu, and S. Das Sarma), Phys. Rev. B **54**, 4996 (1996).
109. Exchange-Correlation Energy for a Two-Dimensional Electron Gas in a Magnetic Field (R. Price and S. Das Sarma), Phys. Rev. B **54**, 8033 (1996).
110. Plasmon-Pole Approximation for Semiconductor Quantum Wire Electrons (S. Das Sarma, E.H. Hwang, and L. Zheng), Phys. Rev. B **54**, 8057 (1996).
111. Spin Instabilities in Coupled Semiconductor Quantum Wells (R.J. Radtke, P.I. Tamborenea, and S. Das Sarma), Phys. Rev. B **54**, 13832 (1996).
112. Inelastic Lifetimes of Confined Two-Component Electron Systems in Semiconductor Quantum Wire and Quantum Well Structures (L. Zheng and S. Das Sarma), Phys. Rev. B **54**, 13908 (1996).
113. Theory of Phonon Shakeup Effects on Photoluminescence from the Wigner Crystal in a Strong Magnetic Field (H.A. Fertig, D.Z. Liu, and S. Das Sarma), Phys. Rev. B **54**, 13915 (1996).
114. Instability, Intermittency and Multiscaling in Discrete Growth Models of Kinetic Roughening (C. Dasgupta, J.M. Kim, M. Dutta, and S. Das Sarma) Phys. Rev. E. **55**, 2235 (1997).
115. Exchange Instabilities in Semiconductor Double-Quantum-Well Systems (L. Zheng, M.W. Ortalano, and S. Das Sarma) Phys. Rev. B **55**, 4506 (1997).
116. Dynamic Scaling in a 2+1 Dimensional Limited Mobility Model of Epitaxial Growth (S. Das Sarma and P. Punyindu) Phys. Rev. E **55**, 5361 (1997).
117. Realistic Calculations of Correlated Incompressible Electronic States in GaAs-Al_xGa_{1-x}As Heterostructures and Quantum Wells (M.W. Ortalano, S. He, and S. Das Sarma) Phys. Rev. B **55**, 7702 (1997).
118. Harmonic Solid Theory of Photoluminescence in the High Field Two-Dimensional Wigner Crystal (S. Kodiyalam, H.A. Fertig, and S. Das Sarma) Phys. Rev. B **56**, 12344 (1997).

119. Nonlinear Transport through Coupled Double Quantum Dot Systems (R. Kotlyar and S. Das Sarma) *Phys. Rev. B* **56**, 13235 (1997).
120. Mode Mixing in Antiferromagnetically Correlated Double Quantum Wells (R.J. Radtke, S. Das Sarma, and A.H. MacDonald) *Phys. Rev. B* **57**, 2342 (1998).
121. Growth of Si on the Si(111) Surface (C.J. Lanczycki, R. Kotlyar, E. Fu, Y.N. Yang, E.D. Williams, and S. Das Sarma) *Phys. Rev. B* **57**, 13132 (1998).
122. Addition Spectrum, Persistent Current, and Spin Polarization in Coupled Quantum Dot Arrays: Coherence, Correlation, and Disorder (R. Kotlyar, C.A. Stafford, and S. Das Sarma) *Phys. Rev. B* **58**, 3989 (1998).
123. Canted Antiferromagnetic and Spin Singlet Quantum Hall States in Double-Layer Systems (S. Das Sarma, S. Sachdev, and L. Zheng) *Phys. Rev. B* **58**, 4672 (1998).
124. Coherent Resonant Tunneling Through an Artificial Molecule (C.A. Stafford, R. Kotlyar, and S. Das Sarma) *Phys. Rev. B* **58**, 7091 (1998).
125. Bilayer to Monolayer Charge-Transfer Instability in Semiconductor Double-Quantum Well Structures (S. Das Sarma, M. Ortalano, and L. Zheng) *Phys. Rev. B* **58**, 7453 (1998).
126. Collective Charge Density Excitations in Two-Component One-Dimensional Quantum Plasmas: Phase Fluctuation Mode Dispersion and Spectral Weight in Semiconductor Quantum Wire Nanostructures (S. Das Sarma and E.H. Hwang), *Phys. Rev. B* **59**, 10730 (1999).
127. Role of Confined Phonons in Thin Film Superconductivity (E.H. Hwang, S. Das Sarma, and M.A. Stroscio), *Phys. Rev. B* **61**, 8659 (2000). cond-mat/9908388
128. Optical Spectral Weights and the Ferromagnetic Transition Temperature of CMR Manganites: Relevance of Double-Exchange to Real Materials (A. Chattopadhyay, A.J. Millis, and S. Das Sarma), *Phys. Rev. B* **61**, 10738 (2000). cond-mat/9908305
129. Hilbert-Space Structure of a Solid-State Quantum Computer: Two-Electron States of a Double-Quantum-Dot Artificial Molecule (X. Hu and S. Das Sarma), *Phys. Rev. A* **61**, 062301 (2000). quant-ph/9911080
130. Extremal Point Densities of Interface Fluctuations (Z. Toroczkai, G. Korniss, S. Das Sarma, and R.K.P. Zia), *Phys. Rev. E* **62**, 276 (2000) cond-mat/0002143.
131. Metal-Insulator Transition in Colossal Magnetoresistance Materials (V.N. Smolyaninova, X.C. Xie, F.C. Zhang, M. Rajeswari, R.L. Greene, and S. Das Sarma), *Phys. Rev. B* **62**, 3010 (2000). cond-mat/9903238

132. Quantum Dot Self-Assembly in Growth of Strained Layer Thin Films: A Kinetic Monte Carlo Study (K.E. Khor and S. Das Sarma), Phys. Rev. B **62**, 16657 (2000). cond-mat/0001145
133. Intraband and Interband Electron Relaxation in Semiconductor Quantum Wire Structures (M. Tavares, S. Das Sarma, and G.Q. Hai), Phys. Rev. B **63**, 045324 (2001). cond-mat/0004056
134. Midgap Edge States and Pairing Symmetry of Quasi-One-Dimensional Organic Superconductors (K. Sengupta, I. Zutic, H.J. Kwon, V.M. Yakovenko, and S. Das Sarma), Phys. Rev. B **63**, 144531 (2001). cond-mat/0010206
135. Bilayer Paired Quantum Hall States and Coulomb Drag (Y.B. Kim, C. Nayak, E. Demler, N. Read, and S. Das Sarma) Phys. Rev. B **63**, 205315 (2001).
136. Correlation Induced Phonon Softening in Coupled Bilayer Systems (E.H. Hwang and S. Das Sarma), Phys. Rev. B **63**, 233201 (2001). cond-mat/0012482
137. T=0 Phase Diagram of the Double-Exchange Model (A. Chattopadhyay, A.J. Millis, and S. Das Sarma), Phys. Rev. B **64**, 012416 (2001). cond-mat/0004151
138. Effect of an Inhomogeneous External Magnetic Field on a Quantum-Dot Quantum Computer (R. de Sousa, X. Hu, and S. Das Sarma), Phys. Rev. A **64**, 042307 (2001). cond-mat/0103410
139. Spin-Based Quantum Computation in Multielectron Quantum Dots (X. Hu and S. Das Sarma), Phys. Rev. A **64**, 042312 (2001). cond-mat/0101102
140. Carrier Relaxation Due to Electron-Electron Interaction in Coupled Double Quantum Well Structures (M.R.S. Tavares, G.Q. Hai, and S. Das Sarma), Phys. Rev. B **64**, 045325 (2001). cond-mat/0101174
141. Plasmon Dispersion in Dilute Two-Dimensional Electron Systems: Quantum-Classical and Wigner Crystal-Electron Liquid Crossover (E.H. Hwang and S. Das Sarma), Phys. Rev. B **64**, 165409 (2001). cond-mat/0102057
142. Coulomb Luttinger Liquid (D.W. Wang, A.J. Millis, and S. Das Sarma), Phys. Rev. B **64**, 193307 (2001). cond-mat/0010241
143. Many-Body Effects on the Excitonic Optical Properties of Photoexcited Semiconductor Quantum Wire Structures (D.W. Wang and S. Das Sarma), Phys. Rev. B **64**, 195313 (2001) cond-mat/0102454

144. Epitaxial Mounding in Limited-Mobility Models of Surface Growth (P. Punyindu, Z. Toroczkai, and S. Das Sarma), Phys. Rev. B **64**, 205407 (2001). cond-mat/0101315
145. Elementary Electronic Excitations in One-Dimensional Continuum and Lattice Systems (D.W. Wang and S. Das Sarma), Phys. Rev. B **65**, 035103 (2002). cond-mat/0101061
146. Universality Class of Discrete Solid-on-Solid Limited Mobility Nonequilibrium Growth Models for Kinetic Surface Roughening (S. Das Sarma, P. Punyindu Chatrathorn, and Z. Toroczkai), Phys. Rev. E **65**, 036144 (2002). cond-mat/0106495
147. Resonant Raman Scattering by Charge Density and Single Particle Excitations in Semiconductor Nanostructures: A Generalized Interband-Resonant Random Phase Approximation Theory (D.W. Wang and S. Das Sarma), Phys. Rev. B **65**, 125322 (2002). cond-mat/0108468
148. Optical Conductivity of Ferromagnetic Semiconductors (E.H. Hwang, A.J. Millis, and S. Das Sarma), Phys. Rev. B **65**, 233206 (2002). cond-mat/0202071
149. Gate Errors in Solid State Quantum Computer Architectures (X. Hu and S. Das Sarma), Phys. Rev. A **66**, 012312 (2002). cond-mat/0202152
150. Spin Transport in Inhomogeneous Magnetic Fields: A Proposal for Stern-Gerlach-Like Experiments with Conduction Electrons (J. Fabian and S. Das Sarma), Phys. Rev. B **66**, 024436 (2002).
151. Layer by Layer Epitaxy in Limited Mobility Nonequilibrium Models of Surface Growth (P. Punyindu Chatrathorn and S. Das Sarma), Phys. Rev. E **66**, 041601 (2002). cond-mat/0203105
152. Relative Importance of the Electron Interaction Strength and Disorder in the Two-Dimensional Metallic State (A. Lewalle, M. Pepper, C.J.B. Ford, E.H. Hwang, S. Das Sarma, D.J. Paul, and G. Redmond), Phys. Rev. B **66**, 075324 (2002). cond-mat/0108244
153. Excitation Gaps in Fractional Quantum Hall States: An Exact Diagonalization Study (R.H. Morf, N. d'Ambrumenil, and S. Das Sarma), Phys. Rev. B **66**, 075408 (2002). cond-mat/0202407
154. Strain Effects on Silicon Donor Exchange: Quantum Computer Architecture Consideration (B. Koiller, X. Hu, and S. Das Sarma), Phys. Rev. B **66**, 115201 (2002). cond-mat/0112078
155. Theory of Spin-Polarized Bipolar Transport in Magnetic p - n Junctions (J. Fabian, I. Zutic, and S. Das Sarma), Phys. Rev. B **66**, 165301 (2002). cond-mat/0205340

156. Magnetoplasmon Excitations and Spin Density Instabilities in an Integer Quantum Hall System with a Tilted Magnetic Field (D.W. Wang, S. Das Sarma, E. Demler, and B.I. Halperin), Phys. Rev. B **66**, 195334 (2002). cond-mat/0207593
157. Electron Spin Coherence in Semiconductors: Considerations for a Spin-Based Solid-State Quantum Computer Architecture (R. de Sousa and S. Das Sarma), Phys. Rev. B **67**, 033301 (2003). cond-mat/0203101
158. Ferromagnetism in Laser Deposited Anatase $\text{Ti}_{1-x}\text{Co}_x\text{O}_{2-\delta}$ Films (S.R. Shinde, S.B. Ogale, S. Das Sarma, S.E. Lofland, V.N. Kulkarni, J. Higgins, R.P. Sharma, S.L. Greene, and T. Venkatesan), Phys. Rev. B **67**, 115211 (2003). cond-mat/0203576
159. Temperature Dependent Resistivity of Spin-Split Subbands in GaAs Two-Dimensional Hole System (E.H. Hwang and S. Das Sarma), Phys. Rev. B **67**, 115316 (2003). cond-mat/0203282
160. Renormalization of the Upper Critical Field by Superconducting Fluctuations (V.M. Galitski and S. Das Sarma), Phys. Rev. B **67**, 144501 (2003).
161. Kohn-Luttinger Pseudo-Pairing in a Two-Dimensional Fermi-Liquid (V.M. Galitski and S. Das Sarma), Phys. Rev. B **67**, 144520 (2003). cond-mat/0211355
162. Temperature-Dependent Magnetization in Diluted Magnetic Semiconductors (S. Das Sarma, E.H. Hwang, and A. Kaminski), Phys. Rev. B **67**, 155201 (2003). cond-mat/0211496
163. Spin-Swap Gate in the Presence of Qubit Inhomogeneity in a Double Quantum Dot (X. Hu and S. Das Sarma), Phys. Rev. A **68**, 052310 (2003).
164. Theory of Nuclear Induced Spectral Diffusion: Spin Decoherence of Phosphorus Donors in Si and GaAs Quantum Dots (R. de Sousa and S. Das Sarma), Phys. Rev. B **68**, 115322 (2003). cond-mat/0211567
165. Gate Control of Spin Dynamics in III-V Semiconductor Quantum Dots (R. de Sousa and S. Das Sarma), Phys. Rev. B **68**, 155330 (2003). cond-mat/0306417
166. Spontaneous Symmetry Breaking and Exotic Quantum Order in Integer Quantum Hall Systems Under a Tilted Magnetic Field (D.W. Wang, E. Demler, and S. Das Sarma), Phys. Rev. B **68**, 165303 (2003).
167. Interaction Corrections to Two-Dimensional Hole Transport in the Large- R_s Limit (H. Noh, M.P. Lilly, D.C. Tsui, J.A. Simmons, E.H. Hwang, S. Das Sarma, L.N. Pfeiffer, K.W. West), Phys. Rev. B **68**, 165308 (2003). cond-mat/0206519

168. Low Density Finite Temperature Apparent Insulating Phase in 2D Semiconductor Systems (S. Das Sarma and E.H. Hwang), Phys Rev. B **68**, 195315 (2003).
169. Magnetic and Transport Percolation in Diluted Magnetic Semiconductors (A. Kaminski and S. Das Sarma) Phys. Rev. B **68**, 235210 (2003). cond-mat/0307294
170. Survival in Equilibrium Step Fluctuations (C. Dasgupta, M. Constantin, S. Das Sarma, and S. N. Majumdar), Phys. Rev. E **69**, 022101 (2004). cond-mat/0307086
171. Spatial Persistence and Survival Probabilities for Fluctuating Interfaces (M. Constantin, S. Das Sarma, and C Dasgupta), Phys. Rev. E **69**, 051603 (2004). cond-mat/0312461
172. Generalized Survival in Equilibrium Step Fluctuations (M. Constantin and S. Das Sarma), Phys. Rev. E **69**, 052601 (2004). cond-mat/0312612
173. Persistence in Nonequilibrium Surface Growth (M. Constantin, C. Dasgupta, P. Punyindu Chatrathorn, S. N. Majumdar, and S. Das Sarma), Phys. Rev. E **69**, 061608 (2004). cond-mat/0401438
174. Double Quantum Dot Turnstile as an Electron Spin Entangler (X. Hu and S. Das Sarma), Phys. Rev. B **69**, 115312 (2004). cond-mat/0307024
175. Temperature Dependent Effective Mass Renormalization in 2D Electron Systems (S. Das Sarma, V.M. Galitski, Y. Zhang), Phys. Rev. B **69**, 125334 (2004).
164. Comment on “Dynamic Correlations of the Spinless Coulomb Luttinger Liquid” [Phys. Rev. B **65**, 125109 (2002)] (D.W. Wang, A.J. Millis, and S. Das Sarma), Phys. Rev. B **69**, 167101 (2004). cond-mat/0206203
165. Metallicity and Its Low Temperature Behavior in Dilute 2D Carrier Systems (S. Das Sarma and E.H. Hwang), Phys. Rev. B **69**, 195305 (2004).
166. Silicon Quantum Computation Based on Magnetic Dipolar Coupling (R. de Sousa, J. D. Delgado, and S. Das Sarma), Phys. Rev. A **70**, 052304 (2004). cond-mat/0311403
167. Universal Temperature Corrections to Fermi Liquid Theory in an Interacting Electron System (V. M. Galitski and S. Das Sarma), Phys. Rev. B **70**, 035111 (2004). cond-mat/0311559
168. Temperature-Dependent Effective Mass Renormalization in a Coulomb Fermi Liquid (Y. Zhang and S. Das Sarma), Phys. Rev. B **70**, 035104 (2004). cond-mat/0312590
169. Shallow Donor Wavefunctions and Donor-Pair Exchange in Silicon: *Ab Initio* Theory and Floating-Phase Heitler-London Approach (B. Koiller, R.B. Capaz, X. Hu, and S. Das

- Sarma), Phys. Rev. B **70**, 115207 (2004). cond-mat/0402266
170. Mapping Spatial Persistent Large Deviations of Nonequilibrium Surface Growth Processes onto the Temporal Persistent Large Deviations of Stochastic Random Walk Processes (M. Constantin and S. Das Sarma), Phys. Rev. E **70**, 041602 (2004). cond-mat/0403707
 171. Theory of Resonant Raman Scattering in One Dimensional Electronic Systems (D.W. Wang, A.J. Millis, and S. Das Sarma), Phys. Rev. B **70**, 165101 (2004). cond-mat/0405452
 172. Ferromagnetism and Random Spin Ordering in Diluted Magnetic Semiconductors (A. Kaminski, V.M. Galitski, and S. Das Sarma), Phys. Rev. B **70**, 115216 (2004). cond-mat/0405467
 173. Sampling Time Effects for Persistence and Survival in Step Structural Fluctuations (D.B. Dougherty, C. Tao, O. Bondarchuk, W.G. Cullen, E.D. Williams, M. Constantin, C. Dasgupta, and S. Das Sarma), Phys. Rev. E **71**, 021602 (2005). cond-mat/0410094
 174. Exchange Gate in Solid State Spin Quantum Computation: The Applicability of the Heisenberg Model (V.W. Scarola and S. Das Sarma) Phys. Rev. A **71**, 032340 (2005). cond-mat/0410521
 175. Quasiparticle Effective Mass Divergence in Two Dimensional Electron Systems (Y. Zhang and S. Das Sarma), Phys. Rev. B **71**, 045322 (2005). cond-mat/0312565
 176. Correlation Time For Step Structural Fluctuations (O. Bondarchuk, D.B. Dougherty, E.D. Williams, M. Constantin, C. Dasgupta, and S. Das Sarma), Phys. Rev. B **71**, 045426 (2005). cond-mat/0408181
 177. Dispersion Instability in Strongly Interacting Electron Liquids (Y. Zhang, V.M. Yakovenko, and S. Das Sarma), Phys. Rev. B **71**, 115105 (2005). cond-mat/0410039
 178. In-Plane Magnetodrag in Dilute Bilayer Two-Dimensional Systems: a Fermi Liquid Theory (S. Das Sarma and E.H. Hwang), Phys. Rev. B **71**, 195322 (2005). cond-mat/0408361
 179. Charge Qubits in Semiconductor Quantum Computer Architectures: Tunnel Coupling and Decoherence (X. Hu, B. Koiller, and S. Das Sarma) Phys. Rev. B **71**, 235332 (2005). cond-mat/0412340
 180. Transport Properties of Diluted Magnetic Semiconductors: Dynamical Mean Field Theory and Boltzmann Theory (E.H. Hwang and S. Das Sarma), Phys. Rev. B **72**, 035210 (2005). cond-mat/0503077

181. Similarities and Differences in 2D ‘Metallicity’ Induced by Temperature and Parallel Magnetic Field: To Screen or Not To Screen (S. Das Sarma and E.H. Hwang) Phys. Rev. B **72**, 035311 (2005). cond-mat/0501393
182. Volatility, Persistence, and Survival in Financial Markets (M. Constantin and S. Das Sarma), Phys. Rev. E **72**, 051106 (2005). physics/0507020
183. Density Dependent Spin Susceptibility in Interacting Quasi-two Dimensional Electron Systems (Y. Zhang and S. Das Sarma), Phys. Rev. B **72**, 075308 (2005). cond-mat/0408335
184. Screening-Theory-Based Description of the Metallic Behavior in Si/SiGe Two-Dimensional Electron Systems (E.H. Hwang and S. Das Sarma), Phys. Rev. B **72**, 085455 (2005). cond-mat/0501531
185. Exchange Instabilities in Electron Systems: Bloch versus Stoner Ferromagnetism (Y. Zhang and S. Das Sarma), Phys. Rev. B **72**, 115317 (2005). cond-mat/0501213
186. Temperature and Magnetization-Dependent Band-Gap Renormalization and Optical Many-Body Effects in Diluted Magnetic Semiconductors (Y. Zhang and S. Das Sarma), Phys. Rev. B **72**, 125303 (2005). cond-mat/0501423
187. Low Density Spin-Polarized Transport in 2D Semiconductor Structures: The Enigma of Temperature Dependent Magnetoresistance of Si MOSFETs in an In-Plane Applied Magnetic Field (S. Das Sarma and E.H. Hwang), Phys. Rev. B **72**, 205303 (2005). cond-mat/0507561
188. Electric Field Driven Donor-Based Charge Qubits in Semiconductors (B. Koiller, X. Hu, and S. Das Sarma) Phys. Rev. B **73**, 045319 (2006). cond-mat/0510520
189. Clustering in Disordered Ferromagnets: The Curie Temperature in Diluted Magnetic Semiconductors (D.J. Priour, Jr. and S. Das Sarma), Phys. Rev. B **73**, 165203 (2006). cond-mat/0509614
190. Intrinsic Spin Hall Conductivity in a Generalized Rashba Model (P.L. Krotkov and S. Das Sarma), Phys. Rev. B **73**, 195307 (2006). cond-mat/0510114
191. Quantum Theory for Electron Spin Decoherence Induced by Nuclear Spin Dynamics in Semiconductor Quantum Computer Architectures: Spectral Diffusion of Localized Electron Spins in the Nuclear Solid-State Environment (W.M. Witzel and S. Das Sarma), Phys. Rev. B **74**, 035322 (2006). cond-mat/0512323
192. Coherent Tunneling in Exciton Condensates of Bilayer Quantum Hall Systems (K. Park and S. Das Sarma), Phys. Rev. B **74**, 035338 (2006). cond-mat/0602663

193. Manipulation of Single Neutral Atoms in Optical Lattices (C. Zhang, S.L. Rolston, and S. Das Sarma), Phys. Rev. A **74**, 042316 (2006). quant-ph/0605245
194. Exchange Coupling in Semiconductor Nanostructures: Validity and Limitations of the Heitler-London Approach (M.J. Calderon, B. Koiller, and S. Das Sarma), Phys. Rev. B **74**, 045310 (2006). cond-mat/0512321
195. Theory of the Microwave Spectroscopy of a Phosphorus-Donor Charge Qubit in Silicon: Coherent Control in the Si:P Quantum-Computer Architecture (C.J. Wellard, L.C.L. Hollenberg, and S. Das Sarma), Phys. Rev. B. **74**, 075306 (2006). cond-mat/0512107
196. Collective Modes and Skyrmion Excitations in Graphene SU(4) Quantum Hall Ferromagnets (K. Yang, S. Das Sarma, and A.H. MacDonald), Phys. Rev. B **74**, 075423 (2006). cond-mat/0605666
197. Mean-Field Theory for Double Perovskites: Coupling between Itinerant Electron Spins and Localized Spins (L. Brey, M.J. Calderon, S. Das Sarma, and F. Guinea), Phys. Rev. B **74**, 094429 (2006). cond-mat/0603143
198. Boundary Conditions for Spin Diffusion in Disordered Systems (V.M. Galitski, A.A. Burkov, and S. Das Sarma), Phys. Rev. B **74**, 115331 (2006). cond-mat/0601677
199. Wigner Supersolid of Excitons in Electron-Hole Bilayers (Y.N. Joglekar, A.V. Balatsky, and S. Das Sarma), Phys. Rev. B **74**, 233302 (2006). cond-mat/0606124
200. Intrinsic Spin Hall Effect in the Presence of Extrinsic Spin-Orbit Scattering (W.K. Tse and S. Das Sarma), Phys. Rev. B **74**, 245309 (2006). cond-mat/0602607
201. Coulomb Drag and Spin Drag in the Presence of Spin-Orbit Coupling (W.K. Tse and S. Das Sarma), Phys. Rev. B **75**, 045333 (2007). cond-mat/0608728
202. Transport Properties of Two-Dimensional Electron Systems on Silicon (111) Surfaces (E.H. Hwang and S. Das Sarma), Phys. Rev. B **75**, 073301 (2007). cond-mat/0608645
203. External Field Control of Donor Electron Exchange at the Si/SiO₂ Interface (M.J. Calderon, B. Koiller, and S. Das Sarma), Phys. Rev. B **75**, 125311 (2007). cond-mat/0612093
204. Dielectric Function, Screening, and Plasmons in Two-Dimensional Graphene (E.H. Hwang and S. Das Sarma), Phys. Rev. B **75**, 205418 (2007). cond-mat/0610561
205. Reentrant Ferromagnetism in a Class of Diluted Magnetic Semiconductors (M.J. Calderon and S. Das Sarma), Phys. Rev. B **75**, 235203 (2007). cond-mat/0611384

206. Probing n-spin Correlations in Optical Lattices (C. Zhang, V.W. Scarola, and S. Das Sarma), Phys. Rev. A **76**, 023605 (2007). cond-mat/0611689
207. Decoherence Induced by Anisotropic Hyperfine Interaction in Si Spin Qubits (W.M. Witzel, X. Hu, and S. Das Sarma), Phys. Rev. B **76**, 035212 (2007). cond-mat/0701341
208. Nuclear Spins as Quantum Memory in Semiconductor Nanostructures (W.M. Witzel and S. Das Sarma), Phys. Rev. B **76**, 045218 (2007). cond-mat/0701480
209. Inelastic Carrier Lifetime in Graphene (E.H. Hwang, B.Y.K. Hu, and S. Das Sarma), Phys. Rev. B **76**, 115434 (2007). cond-mat/0612345
210. Transport in Chemically Doped Graphene in the Presence of Adsorbed Molecules (E.H. Hwang, S. Adam, S. Das Sarma, and A.K. Geim), Phys. Rev. B **76**, 195421 (2007). cond-mat/0610834
211. Statistics of Random Voltage Fluctuations and the Low-Density Residual Conductivity of Graphene (V.M. Galitski, S. Adam, and S. Das Sarma), Phys. Rev. B **76**, 245405 (2007). cond-mat/0702117
212. Emulating Non-Abelian Topological Matter in Cold-Atom Optical Lattices (V.W. Scarola and S. Das Sarma), Phys. Rev. A **77**, 023612 (2008). arXiv:0707.4435
213. Boltzmann Transport and Residual Conductivity in Bilayer Graphene (S. Adam and S. Das Sarma), Phys. Rev. B **77**, 115436 (2008). arXiv:0711.0003
214. Acoustic Phonon Scattering Limited Carrier Mobility in Two-Dimensional Extrinsic Graphene (E.H. Hwang and S. Das Sarma), Phys. Rev. B **77**, 115449 (2008). arXiv:0711.0754
215. Model of Valley Interference Effects on a Donor Electron Close to a Si/SiO₂ Interface (M.J. Calderon, B. Koiller, and S. Das Sarma), Phys. Rev. B **77**, 155302 (2008). arXiv:0712.1823
216. Wavefunction Considerations for the Central Spin Decoherence Problem in a Nuclear Spin Bath (W.M. Witzel and S. Das Sarma), Phys. Rev. B **77**, 165319 (2008). arXiv:0712.3065
217. How to Enhance Dephasing Time in Superconducting Qubits (L. Cywinski, R.M. Lutchyn, C.P. Nave, and S. Das Sarma), Phys. Rev. B **77**, 174509 (2008). arXiv:0712.2225
218. Single Particle Relaxation Time versus Transport Scattering Time in a Two-Dimensional Graphene Layer (E.H. Hwang and S. Das Sarma), Phys. Rev. B **77**, 195412 (2008).

arXiv:0801.4736

219. $p_{x,y}$ -Orbital Counterpart of Graphene: Cold Atoms in the Honeycomb Optical Lattice (C. Wu and S. Das Sarma), Phys. Rev. B **77**, 235107 (2008). arXiv:0712.4284
220. Spatial Adiabatic Passage in a Realistic Triple Well Structure (J.H. Cole, A.D. Greentree, L.C.L. Hollenberg, and S. Das Sarma), Phys. Rev. B **77**, 235418 (2008). arXiv:0802.2398
221. Limit to Two-Dimensional Mobility in Modulation-Doped GaAs Quantum Structures: How to Achieve a Mobility of 100 Million (E.H. Hwang and S. Das Sarma), Phys. Rev. B **77**, 235437 (2008). arXiv:0804.4684
222. Quantum Decoherence of a Charge Qubit in a Spin-Fermion Model (R.M. Lutchyn, L. Cywinski, C.P. Nave, and S. Das Sarma), Phys. Rev. B **78**, 024508 (2008). arXiv:0803.3452
223. Transport and Drag in Undoped Electron-Hole Bilayers (E.H. Hwang and S. Das Sarma), Phys. Rev. B **78**, 075430 (2008). arXiv:0804.3311
224. Ginzburg-Landau Theory for the Conical Cycloid State in Multiferroics: Applications to CoCr_2O_4 (C. Zhang, S. Tewari, J. Toner, and S. Das Sarma), Phys. Rev. B **78**, 144426 (2008). arXiv:0710.4550
225. Goldstone Modes and Electromagnon Fluctuations in the Conical Cycloid State of a Multiferroic (S. Tewari, C. Zhang, J. Toner, and S. Das Sarma), Phys. Rev. B **78**, 144427 (2008). arXiv:0710.4551
226. Orbital Landau Level Dependence of the Fractional Quantum Hall Effect in Quasi-Two-Dimensional Electron Layers: Finite-Thickness Effects (M.R. Peterson, Th. Jolicoeur, and S. Das Sarma), Phys. Rev. B **78**, 155308 (2008). arXiv:0801.4819
227. Density of States of Disordered Graphene (B.Y.K. Hu, E.H. Hwang, and S. Das Sarma), Phys. Rev. B **78**, 165411 (2008). arXiv:0805.2148
228. Anomalous Nernst Effect from a Chiral d -Density-Wave State in Underdoped Cuprate Superconductors (C. Zhang, S. Tewari, V.M. Yakovenko, and S. Das Sarma), Phys. Rev. B **78**, 174508 (2008). arXiv:0803.3220
229. Orbital Fluctuation Mechanism for Superconductivity in Iron-Based Compounds (T.D. Stanescu, V.M. Galitski, and S. Das Sarma), Phys. Rev. B **78**, 195114 (2008). arXiv:0805.2150
230. Topological Insulators and Metals in Atomic Optical Lattices (T.D. Stanescu, V.M. Galitski, J.Y. Vaishnav, C.W. Clark, and S. Das Sarma), Phys. Rev. A **79**, 053639 (2009).

arXiv:0901.3921

231. Spin Polarization of the $\nu=5/2$ Quantum Hall State (A.E. Feiguin, E. Rezayi, K. Yang, C. Nayak, and S. Das Sarma), Phys. Rev. B **79**, 115322 (2009). arXiv:0804.4502
232. Screening-Induced Temperature-Dependent Transport in Two-Dimensional Graphene (E.H. Hwang and S. Das Sarma), Phys. Rev. B **79**, 165404 (2009). arXiv:0811.1212
233. Observation of Percolation-Induced Two-Dimensional Metal-Insulator Transition in a Si MOSFET (L.A. Tracy, E.H. Hwang, K. Eng, G.A. Ten Eyck, E.P. Nordberg, K. Childs, M.S. Carroll, M.P. Lilly, and S. Das Sarma), Phys. Rev. B **79**, 235307 (2009). arXiv:0811.1394
234. Energy Relaxation of Hot Dirac Fermions in Graphene (W.K. Tse and S. Das Sarma), Phys. Rev. B **79**, 235406 (2009). arXiv:0812.1008
235. Pure Quantum Dephasing of a Solid-State Electron Spin Qubit in a Large Nuclear Spin Bath Coupled by Long-Range Hyperfine-Mediated Interactions (L. Cywinski, W.M. Witzel, and S. Das Sarma), Phys. Rev. B **79**, 245314 (2009). arXiv:0903.2256
236. Effective Medium Theory for Disordered Two-Dimensional Graphene (E. Rossi, S. Adam, and S. Das Sarma), Phys. Rev. B **79**, 245423 (2009). arXiv:0809.1425
237. Berry-Phase-Mediated Topological Thermoelectric Transport in Gapped Single and Bilayer Graphene (C. Zhang, S. Tewari, and S. Das Sarma), Phys. Rev. B **79**, 245424 (2009). arXiv:0901.1122
238. Effects of Fermions on the Superfluid-Insulator Phase Diagram of the Bose-Hubbard Model (S. Tewari, R.M. Lutchyn, and S. Das Sarma), Phys. Rev. B **80**, 054511 (2009). arXiv:0902.0172
239. Graphene Magnetoresistance in a Parallel Magnetic Field: Spin Polarization Effect (E.H. Hwang and S. Das Sarma), Phys. Rev. B **80**, 075417 (2009). arXiv:0812.0403
240. Realizing Singlet-Triplet Qubits in Multivalley Si Quantum Dots (D. Culcer, L. Cywinski, Q. Li, X. Hu, and S. Das Sarma), Phys. Rev. B **80**, 205302 (2009). arXiv:0903.0863
241. Plasmon Modes of Spatially Separated Double-Layer Graphene (E.H. Hwang and S. Das Sarma), Phys. Rev. B **80**, 205405 (2009). arXiv:0906.0771
242. Theory of Thermopower in Two-Dimensional Graphene (E.H. Hwang, E. Rossi, and S. Das Sarma), Phys. Rev. B **80**, 235415 (2009). arXiv:0902.1749
243. Anisotropic-Fermi-Liquid Theory of Ultracold Fermionic Polar Molecules: Landau Parameters and Collective Modes (C.K. Chan, C. Wu, W.C. Lee, and S. Das Sarma),

- Phys. Rev. A **81**, 023602 (2010). arXiv:0906.4403
244. Stable Topological Superconductivity in a Family of Two-Dimensional Fermion Models (M. Cheng, K. Sun, V.M. Galitski, and S. Das Sarma), Phys. Rev. B **81**, 024504 (2010). arXiv:0908.2805
245. Exchange Coupling in Silicon Quantum Dots: Theoretical Considerations for Quantum Computation (Q. Li, L. Cywinski, D. Culcer, X. Hu, and S. Das Sarma), Phys. Rev. B **81**, 085313 (2010). arXiv:0906.4793
246. Quantum Hall Phase Diagram of Half-Filled Bilayers in the Lowest and the Second Orbital Landau Levels: Abelian versus Non-Abelian Incompressible Fractional Quantum Hall States (M.R. Peterson and S. Das Sarma), Phys. Rev. B **81**, 165304 (2010). arXiv:1002.4359
247. Topological States in Two-Dimensional Optical Lattices (T.D. Stanescu, V.M. Galitski, and S. Das Sarma), Phys. Rev. A **82**, 013608 (2010). arXiv:0912.3559
248. Probing Kitaev Models on Small Lattices (H.D. Chen, B. Wang, and S. Das Sarma), Phys. Rev. B **81**, 235131 (2010). arXiv:0906.0017
249. Spin Echo Decay at Low Magnetic Fields in a Nuclear Spin Bath (L. Cywinski, V.V. Dobrovitski, and S. Das Sarma), Phys. Rev. B **82**, 035315 (2010). arXiv:1004.0329
250. Spontaneous Inhomogeneous Phases in Ultracold Dipolar Fermi Gases (K. Sun, C. Wu, and S. Das Sarma), Phys. Rev. B **82**, 075105 (2010). arXiv:1003.2757
251. Tunneling of Anyonic Majorana Excitations in Topological Superconductors (M. Cheng, R.M. Lutchyn, V.M. Galitski, and S. Das Sarma), Phys. Rev. B **82**, 094504 (2010). arXiv:1006.0452
252. Robustness of Majorana Fermions in Proximity-Induced Superconductors (J.D. Sau, R.M. Lutchyn, S. Tewari, and S. Das Sarma), Phys. Rev. B **82**, 094522 (2010). arXiv:0912.4508
253. Energy Gap and Spin Polarization in the $5/2$ Fractional Quantum Hall Effect (S. Das Sarma, G. Gervais, and X. Zhou), Phys. Rev. B **82**, 115330 (2010). arXiv:1007.1688
254. Compressibility, Zero Sound, and Effective Mass of a Fermionic Dipolar Gas at Finite Temperature (J.P. Kestner and S. Das Sarma), Phys. Rev. A **82**, 033608 (2010). arXiv:1001.4763
255. Quantum Dot Spin Qubits in Silicon: Multivalley Physics (D. Culcer, L. Cywinski, Q. Li, X. Hu, and S. Das Sarma), Phys. Rev. B **82**, 155312 (2010). arXiv:1001.5040

256. Two-Dimensional Surface Charge Transport in Topological Insulators (D. Culcer, E.H. Hwang, T.D. Stanescu, and S. Das Sarma), Phys. Rev. B **82**, 155457 (2010). arXiv:1005.4931
257. Non-Abelian Topological Order in Noncentrosymmetric Superconductors with Broken Time-Reversal Symmetry (P. Ghosh, J.D. Sau, S. Tewari, and S. Das Sarma), Phys. Rev. B **82**, 184525 (2010). arXiv:1006.3083
258. Plasmon-Phonon Coupling in Graphene (E.H. Hwang, R. Sensarma, and S. Das Sarma), Phys. Rev. B **82**, 195406 (2010). arXiv:1008.0862
259. Dynamic Screening and Low-Energy Collective Modes in Bilayer Graphene (R. Sensarma, E.H. Hwang, and S. Das Sarma), Phys. Rev. B **82**, 195428 (2010). arXiv:1006.3078
260. Interface Roughness, Valley-Orbit Coupling and Valley Manipulation in Quantum Dots (D. Culcer, X. Hu, and S. Das Sarma), Phys. Rev. B **82**, 205315 (2010). arXiv:1006.5448
261. Universal Quantum Computation on a Semiconductor Quantum Wire Network (J.D. Sau, S. Tewari, and S. Das Sarma), Phys. Rev. A **82**, 052322 (2010). arXiv:1007.4204
262. *F*-wave Pairing of Cold Atoms in Optical Lattices (W.C. Lee, C. Wu, and S. Das Sarma), Phys. Rev. A **82**, 053611 (2010). arXiv:0905.1146
263. Non-Abelian Quantum Order in Spin-Orbit-Coupled Semiconductors: Search for Topological Majorana Particles in Solid State Systems (J.D. Sau, S. Tewari, R.M. Lutchyn, T.D. Stanescu, and S. Das Sarma), Phys. Rev. B **82**, 214509 (2010). arXiv:1006.2829
264. Collective Modes of Monolayer, Bilayer, and Multilayer Fermionic Dipolar Liquid (Q. Li, E.H. Hwang, and S. Das Sarma), Phys. Rev. B **82**, 235126 (2010). arXiv:1009.4204
265. Fractional Quantum Hall Effects in Bilayers in the Presence of Inter-Layer Tunneling and Charge Imbalance (M.R. Peterson, Z. Papic, and S. Das Sarma), Phys. Rev. B **82**, 235312 (2010). arXiv:1008.0650
266. Bogoliubov Theory of Interacting Bosons on a Lattice in a Synthetic Magnetic Field (S. Powell, R. Barnett, R. Sensarma, and S. Das Sarma), Phys. Rev. A **83**, 013612 (2011). arXiv:1009.1389
267. Localization in One-Dimensional Lattices with Non-Nearest-Neighbor Hopping: Generalized Anderson and Aubry-Andre Models (J. Biddle, D.J. Priour, Jr., B. Wang, and S. Das Sarma), Phys. Rev. B **83**, 075105 (2011). arXiv:1008.0361

268. Quantum Rotor Theory of Spinor Condensates in Tight Traps (R. Barnett, H.Y. Hui, C.H. Lin, J.D. Sau, and S. Das Sarma), *Phys. Rev. A* **83**, 023613 (2011). arXiv:1011.3517
269. Anisotropic Surface Transport in Topological Insulators in Proximity to a Helical Spin Density Wave (Q. Li, P. Ghosh, J.D. Sau, S. Tewari, and S. Das Sarma), *Phys. Rev. B* **83**, 085110 (2011). arXiv:1010.0683
270. Compressibility of Graphene (D.S.L. Abergel, E.H. Hwang, and S. Das Sarma), *Phys. Rev. B* **83**, 085429 (2011). arXiv:1011.0995
271. Hyperfine Interactions in Silicon Quantum Dots (L.V.C. Assali, H.M. Petrilli, R.B. Capaz, B. Koiller, X. Hu, and S. Das Sarma), *Phys. Rev. B* **83**, 165301 (2011). arXiv:1007.1000
272. Prediction of a Gapless Topological Haldane Liquid Phase in a One-Dimensional Cold Polar Molecular Lattice (J.P. Kestner, B. Wang, J.D. Sau, and S. Das Sarma), *Phys. Rev. B* **83**, 174409 (2011). arXiv:1011.2490
273. Condensates Induced by Interband Coupling in a Double-Well Lattice (Q. Zhou, J.V. Porto, and S. Das Sarma), *Phys. Rev. B* **83**, 195106 (2011). arXiv:1010.1534
274. Hubbard Model Description of Silicon Spin Qubits: Charge Stability Diagram and Tunnel Coupling in Si Double Quantum Dots (S. Das Sarma, X. Wang, and S. Yang), *Phys. Rev. B* **83**, 235314 (2011). arXiv:1103.5460
275. Impurity Effects on Semiconductor Quantum Bits in Coupled Quantum Dots (N.T.T. Nguyen and S. Das Sarma), *Phys. Rev. B* **83**, 235322 (2011). arXiv:1103.0767
276. Anomalous Hall Response of Topological Insulators (D. Culcer and S. Das Sarma), *Phys. Rev. B* **83**, 245441 (2011). arXiv:1012.3459
277. Proposed Spin-Qubit Controlled-NOT Gate Robust Against Noisy Coupling (J.P. Kestner and S. Das Sarma), *Phys. Rev. A* **84**, 012315 (2011). arXiv:1103.1379
278. Nonmonotonic Temperature Dependent Transport in Graphene Grown by Chemical Vapor Deposition (J. Heo, H.J. Chung, S.H. Lee, H. Yang, D.H. Seo, J.K. Shin, U.I. Chung, S. Seo, E.H. Hwang, and S. Das Sarma), *Phys. Rev. B* **84**, 035421 (2011). arXiv:1009.2506
279. Probing Non-Abelian Statistics with Majorana Fermion Interferometry in Spin-Orbit-Coupled Semiconductors (J.D. Sau, S. Tewari, and S. Das Sarma), *Phys. Rev. B* **84**, 085109 (2011). arXiv:1004.4702
280. Nonadiabatic Effects in the Braiding of Non-Abelian Anyons in Topological Superconductors (M. Cheng, V.M. Galitski, and S. Das Sarma), *Phys. Rev. B* **84**, 104529

(2011). arXiv:1106.2549

281. Quantum Theory of the Charge-Stability Diagram of Semiconductor Double-Quantum-Dot Systems (X. Wang, S. Yang, and S. Das Sarma), Phys. Rev. B **84**, 115301 (2011). arXiv:1104.5491
282. Disorder-Induced Temperature-Dependent Transport in Graphene: Puddles, Impurities, Activation, and Diffusion (Q. Li, E.H. Hwang, and S. Das Sarma), Phys. Rev. B **84**, 115442 (2011). arXiv:1105.1771
283. Entanglement Measures for Quasi-Two-Dimensional Fractional Quantum Hall States (J. Biddle, M.R. Peterson, and S. Das Sarma), Phys. Rev. B **84**, 125141 (2011). arXiv:1105.1385
284. Number Conserving Theory for Topologically Protected Degeneracy in One-Dimensional Fermions (J.D. Sau, B.I. Halperin, K. Flensburg, and S. Das Sarma), Phys. Rev. B **84**, 144509 (2011). arXiv:1106.4014
285. Instabilities of Bosonic Spin Currents in Optical Lattices (H.Y. Hui, R. Barnett, R. Sensarma, and S. Das Sarma), Phys. Rev. A **84**, 043615 (2011). arXiv:1108.2512
286. Majorana Fermions in Semiconductor Nanowires (T. Stanescu, R.M. Lutchyn, and S. Das Sarma), Phys. Rev. B **84**, 144522 (2011). arXiv:1106.3078
287. Master Equation Approach to the Central Spin Decoherence Problem: Uniform Coupling Model and Role of Projection Operators (E. Barnes, L. Cywinski, and S. Das Sarma), Phys. Rev. B **84**, 155315 (2011). arXiv:1108.1199
288. Intervalley Coupling for Interface-Bound Electrons in Silicon: An Effective Mass Study (A.L. Saraiva, M.J. Calderon, X. Hu, S. Das Sarma, and B. Koiller), Phys. Rev. B **84**, 155320 (2011). arXiv:1006.3338
289. dmu/dn in Suspended Bilayer Graphene: The Interplay of Disorder and Band Gap (D.S.L. Abergel, H. Min, E.H. Hwang, and S. Das Sarma), Phys. Rev. B **84**, 195423 (2011). arXiv:1107.4100
290. Screening of Charged Impurities with Multielectron Singlet-Triplet Spin Qubits in Quantum Dots (E. Barnes, J.P. Kestner, N.T.T. Nguyen, and S. Das Sarma), Phys. Rev. B **84**, 235309 (2011). arXiv:1108.1399
291. Temperature-Dependent Compressibility in Graphene and Two-Dimensional Systems (Q. Li, E.H. Hwang, and S. Das Sarma), Phys. Rev. B **84**, 235407 (2011). arXiv:1109.5701

292. Proposed Signature of Anderson Localization and Correlation-Induced Delocalization in an N -leg Optical Lattice (T.A. Sedrakyan, J.P. Kestner, and S. Das Sarma), *Phys. Rev. A* **84**, 053621 (2011). arXiv:1109.3449
293. Coulomb Drag in Monolayer and Bilayer Graphene (E.H. Hwang, R. Sensarma, and S. Das Sarma), *Phys. Rev. B* **84**, 245441 (2011). arXiv:1111.5022
294. Comparison of Microscopic Models for Disorder in Bilayer Graphene: Implications for Density of States and Optical Conductivity (D.S.L. Abergel, H. Min, E.H. Hwang, and S. Das Sarma), *Phys. Rev. B* **85**, 045411 (2012). arXiv:1109.5702
295. Order by Disorder in Spin-Orbit-Coupled Bose-Einstein Condensates (R. Barnett, S. Powell, T. Grass, M. Lewenstein, and S. Das Sarma), *Phys. Rev. A* **85**, 023615 (2012). arXiv:1109.4945
296. Experimental and Materials Considerations for the Topological Superconducting State in Electron- and Hole-Doped Semiconductors: Searching for non-Abelian Majorana Modes in 1D Nanowires and 2D Heterostructures (J.D. Sau, S. Tewari, and S. Das Sarma), *Phys. Rev. B* **85**, 064512 (2012). arXiv:1111.2054
297. Probing a Topological Quantum Critical Point in Semiconductor-Superconductor Heterostructures (S. Tewari, J.D. Sau, V.W. Scarola, C. Zhang, and S. Das Sarma), *Phys. Rev. B* **85**, 155302 (2012). arXiv:1106.5506
298. Topological Protection of Majorana Qubits (M. Cheng, R.M. Lutchyn, and S. Das Sarma), *Phys. Rev. B* **85**, 165124 (2012). arXiv:1112.3662
299. Disorder by Order in Graphene (S. Das Sarma, E.H. Hwang, and Q. Li), *Phys. Rev. B* **85**, 195451 (2012). arXiv:1109.0988
300. Quantum Phases of Disordered Flatband Lattice Fractional Quantum Hall Systems (S. Yang, K. Sun, and S. Das Sarma), *Phys. Rev. B* **85**, 205124 (2012). arXiv:1202.1526
301. Two-Dimensional Transport and Screening in Topological Insulator Surface States (S. Adam, E.H. Hwang, and S. Das Sarma), *Phys. Rev. B* **85**, 235413 (2012). arXiv:1201.4433
302. Topological Minigap in Quasi-One-Dimensional Spin-Orbit-Coupled Semiconductor Majorana Wires (S. Tewari, T.D. Stanescu, J.D. Sau, and S. Das Sarma), *Phys. Rev. B* **86**, 024504 (2012). arXiv:1204.3637
303. Quantum Decoherence of the Central Spin in a Sparse System of Dipolar Coupled Spins (W.M. Witzel, M.S. Carroll, L. Cywinski, and S. Das Sarma), *Phys. Rev. B* **86**, 035452 (2012). arXiv:1204.2834

304. Interplay between Phonon and Impurity Scattering in Two-Dimensional Hole Transport (H. Min, E.H. Hwang, and S. Das Sarma), Phys. Rev. B **86**, 085307 (2012). arXiv:1203.1929
305. Inhomogeneity and Nonlinear Screening in Gapped Bilayer Graphene (D.S.L. Abergel, E. Rossi, and S. Das Sarma), Phys. Rev. B **86**, 155447 (2012). arXiv:1204.5765
306. Gate-Tunable Quantum Transport in Double-Layer Graphene (K. Kechedzhi, E.H. Hwang, and S. Das Sarma), Phys. Rev. B **86**, 165442 (2012). arXiv:1208.3470
307. Loop-Structure Stability of a Double-Well-Lattice Bose-Einstein Condensate (H.Y. Hui, R. Barnett, J.V. Porto, and S. Das Sarma), Phys. Rev. A **86**, 063636 (2012). arXiv:1208.6300
308. Quantum Dynamics of Disordered Bosons in an Optical Lattice (C.H. Lin, R. Sensarma, K. Sengupta, and S. Das Sarma), Phys. Rev. B **86**, 214207 (2012). arXiv:1208.4852
309. Zero-Bias Conductance Peak in Majorana Wires Made of Semiconductor/Superconductor Hybrid Structures (C.H. Lin, J.D. Sau, and S. Das Sarma), Phys. Rev. B **86**, 224511 (2012). arXiv:1204.3085
310. Two-Dimensional Electronic Transport on the Surface of Three-Dimensional Topological Insulators (Q. Li, E. Rossi, and S. Das Sarma), Phys. Rev. B **86**, 235443 (2012). arXiv:1211.1970
311. Topological Superconductivity and Majorana Fermions in Hybrid Structures Involving Cuprate High-Tc Superconductors (S. Takei, B.M. Fregoso, V.M. Galitski, and S. Das Sarma), Phys. Rev. B **87**, 014504 (2013). arXiv:1206.3226
312. Density-Dependent Electrical Conductivity in Suspended Graphene: Approaching the Dirac Point in Transport (S. Das Sarma and E.H. Hwang), Phys. Rev. B **87**, 035415 (2013). arXiv:1211.2845
313. Velocity Renormalization and Anomalous Quasiparticle Dispersion in Extrinsic Graphene (S. Das Sarma and E.H. Hwang), Phys. Rev. B **87**, 045425 (2013). arXiv:1203.2627
314. Valley-Dependent Two-Dimensional Transport in (100), (110), and (111) Si Inversion Layers at Low Temperatures and Carrier Densities (E.H. Hwang and S. Das Sarma), Phys. Rev. B **87**, 075306 (2013). arXiv:1210.2896
315. Finite Temperature Inelastic Mean Free Path and Quasiparticle Lifetime in Graphene (Q. Li and S. Das Sarma), Phys. Rev. B **87**, 085406 (2013). arXiv:1211.6430
316. Dimensional Crossover in Spin-Orbit-Coupled Semiconductor Nanowires with Induced Superconducting Pairing (T.D. Stanescu, R.M. Lutchyn, and S. Das Sarma), Phys. Rev. B

- 87**, 094518 (2013). arXiv:1208.4136
317. Surface Polar Optical Phonon Interaction Induced Many-Body Effects and Hot-Electron Relaxation in Graphene (E.H. Hwang and S. Das Sarma), Phys. Rev. B **87**, 115432 (2013). arXiv:1302.0544
318. Electronic Transport in Two-Dimensional Si:P δ -doped Layers (E.H. Hwang and S. Das Sarma), Phys. Rev. B **87**, 125411 (2013). arXiv:1211.1985
319. Variational Monte Carlo Study of Spin-Polarization Stability of Fractional Quantum Hall States Against Realistic Effects in Half-Filled Landau Levels (J. Biddle, M.R. Peterson, and S. Das Sarma), Phys. Rev. B **87**, 235134 (2013). arXiv:1304.1174
320. Intrinsic Plasmons in Two-Dimensional Dirac Materials (S. Das Sarma and Q. Li), Phys. Rev. B **87**, 235418 (2013). arXiv:1305.0825
321. Universal Density Scaling of Disorder-Limited Low-Temperature Conductivity in High-Mobility Two-Dimensional Systems (S. Das Sarma and E.H. Hwang), Phys. Rev. B **88**, 035439 (2013). arXiv:1304.4668
322. Density of States of Disordered Topological Superconductor-Semiconductor Hybrid Nanowires (J.D. Sau and S. Das Sarma), Phys. Rev. B **88**, 064506 (2013). arXiv:1305.0554
323. Hyperfine Interaction Induced Dephasing of Coupled Spin Qubits in Semiconductor Double Quantum Dots (J.T. Hung, L. Cywinski, X. Hu, and S. Das Sarma), Phys. Rev. B **88**, 085314 (2013). arXiv:1304.6711
324. Plasmon Anomaly in the Dynamical Optical Conductivity of Graphene (K. Kechedzhi and S. Das Sarma), Phys. Rev. B **88**, 085403 (2013). arXiv:1305.4940
325. Spin Dynamics in a Spin-Orbit Coupled Fermi Gas (S.S. Natu and S. Das Sarma), Phys. Rev. A **88**, 033613 (2013). arXiv:1305.2443
326. Two-Dimensional Metal-Insulator-Transition as a Potential Fluctuation Driven Semiclassical Transport Phenomenon (S. Das Sarma, E.H. Hwang, and Q. Li), Phys. Rev. B **88**, 155310 (2013). arXiv:1306.2621
327. Six-Electron Semiconductor Double Quantum Dot Qubits (E. Nielson, E. Barnes, J.P. Kestner, and S. Das Sarma), Phys. Rev. B **88**, 195131 (2013). arXiv:1304.6064
328. Inter-layer Excitonic Superfluidity in Graphene (D.S.L. Abergel, M. Rodriguez-Vega, E. Rossi, and S. Das Sarma), Phys. Rev. B **88**, 235402 (2013). arXiv:1305.4936

329. Robust Quantum Gates for Singlet-Triplet Spin Qubits Using Composite Pulses (X. Wang, L.S. Bishop, E. Barnes, J.P. Kestner, and S. Das Sarma), Phys. Rev. A **89**, 022310 (2014). arXiv:1312.4523
330. Robust Two-Qubit Gates for Exchange-Coupled Qubits (F. Setiawan, H.Y. Hui, J.P. Kestner, X. Wang, and S. Das Sarma), Phys. Rev. B **89**, 085314 (2014). arXiv:1312.0949
331. Migdal's Theorem and Electron-Phonon Vertex Corrections in Dirac Materials (B. Roy, J.D. Sau, and S. Das Sarma), Phys. Rev. B **89**, 165119 (2014). arXiv:1401.5056
332. Cyclotron Dynamics of Interacting Bosons in Artificial Magnetic Fields (X.P. Li and S. Das Sarma), Phys. Rev. B **89**, 224302 (2014). arXiv:1312.5747
333. Two-Dimensional Metal-Insulator Transition as a Strong Localization Induced Crossover Phenomenon (S. Das Sarma and E.H. Hwang), Phys. Rev. B **89**, 235423 (2014). arXiv:1401.4762
334. Effective Field Theory, Three-Loop Perturbative Expansion, and Their Experimental Implications in Graphene Many-Body Effects (E. Barnes, E.H. Hwang, R.E. Throckmorton, and S. Das Sarma), Phys. Rev. B **89**, 235431 (2014). arXiv:1401.7011
335. Ground State of Graphene Heterostructures in the Presence of Random Charged Impurities (M. Rodriguez-Vega, J. Fischer, S. Das Sarma, and E. Rossi), Phys. Rev. B **90**, 035406 (2014). arXiv:1403.7206
336. Mobility versus Quality in Two-Dimensional Semiconductor Structures (S. Das Sarma and E.H. Hwang), Phys. Rev. B **90**, 035425 (2014). arXiv:1403.4256
337. Generalized Eilenberger Theory for Majorana Zero-Mode-Carrying Disordered p -Wave Superconductors (H.Y. Hui, J.D. Sau, and S. Das Sarma), Phys. Rev. B **90**, 064516 (2014). arXiv:1406.4853
338. Soft Superconducting Gap in Semiconductor-Based Majorana Nanowires (T.D. Stanescu, R.M. Lutchyn, and S. Das Sarma), Phys. Rev. B **90**, 085302 (2014). arXiv:1311.2075
339. Variational Study of Polarons in Bose-Einstein Condensates (W. Li and S. Das Sarma), Phys. Rev. A **90**, 013618 (2014). arXiv:1404.4054
340. Signatures of Localization in the Effective Metallic Regime of High-Mobility Si MOSFETs (S. Das Sarma, E.H. Hwang, K. Kechedzhi, and L.A. Tracy), Phys. Rev. B **90**, 125410 (2014). arXiv:1406.3024
341. Converting a Real Quantum Spin Bath to an Effective Classical Noise Acting on a Central Spin (W.M. Witzel, K. Young, and S. Das Sarma), Phys. Rev. B **90**, 115431 (2014).

arXiv:1307.2597

342. Noise-Compensating Pulses for Electrostatically Controlled Silicon Spin Qubits (X. Wang, F.A. Calderon-Vargas, M.S. Rana, J.P. Kestner, E. Barnes, and S. Das Sarma), Phys. Rev. B **90**, 155306 (2014). arXiv:1407.1555
343. Dynamics of Correlations in a Quasi-Two-Dimensional Dipolar Bose Gas Following a Quantum Quench (S.S. Natu, L. Campanello, and S. Das Sarma), Phys. Rev. A **90**, 043617 (2014). arXiv:1401.0735
344. Disorder-Induced Subgap States and Majorana Zero-Energy Edge Modes in Two-Dimensional Topological Insulator-Superconductor Hybrid Structures (H.Y. Hui, J.D. Sau, and S. Das Sarma), Phys. Rev. B **90**, 174206 (2014). arXiv:1401.3010
345. Odd-Parity Superconductivity from Phonon-Mediated Pairing: Application to $\text{Cu}_x\text{Bi}_2\text{Se}_3$ (P.M.R. Brydon, S. Das Sarma, H.Y. Hui, and J.D. Sau), Phys. Rev. B **90**, 184512 (2014). arXiv:1402.7061
346. Quantum Multicriticality in Bilayer Graphene with a Tunable Energy Gap (R.E. Throckmorton and S. Das Sarma), Phys. Rev. B **90**, 205407 (2014). arXiv:1408.4804
347. Proximity-Induced Superconductivity and Josephson Critical Current in Quantum Spin Hall Systems (H.Y. Hui, A.M. Lobos, J.D. Sau, and S. Das Sarma), Phys. Rev. B **90**, 224517 (2014). arXiv:1410.4205
348. Carrier Screening, Transport, and Relaxation in Three-Dimensional Dirac Semimetals (S. Das Sarma, E.H. Hwang, and H. Min), Phys. Rev. B **91**, 035201 (2015). arXiv:1408.0518
349. Topological Yu-Shiba-Rusinov Chain from Spin-Orbit Coupling (P.M.R. Brydon, S. Das Sarma, H.Y. Hui, and J.D. Sau), Phys. Rev. B **91**, 064505 (2015). arXiv:1407.6345
350. Majorana Fermions in Chiral Topological Ferromagnetic Nanowires (E. Dumitrescu, B. Roberts, S. Tewari, J.D. Sau, and S. Das Sarma), Phys. Rev. B **91**, 094505 (2015). arXiv:1410.5412
351. Constructing a Weyl Semimetal by Stacking One-Dimensional Topological Phases (S. Ganeshan and S. Das Sarma), Phys. Rev. B **91**, 125438 (2015). arXiv:1405.4866
352. Static and Dynamic Properties of Interacting Spin-1 Bosons in an Optical Lattice (S.S. Natu, J.H. Pixley, and S. Das Sarma), Phys. Rev. A **91**, 043620 (2015). arXiv:1502.01041
353. Charge Transport in Gapless Electron-Hole Systems with Arbitrary Band Dispersion (S. Das Sarma and E.H. Hwang), Phys. Rev. B **91**, 195104 (2015). arXiv:1501.05642

354. Transport in Two-Dimensional Modulation-Doped Semiconductor Structures (S. Das Sarma, E.H. Hwang, S. Kodiyalam, L.N. Pfeiffer, and K.W. West), *Phys. Rev. B* **91**, 205304 (2015). arXiv:1412.8479
355. Conductance Spectroscopy of Topological Superconductor Wire Junctions (F. Setiawan, P.M.R. Brydon, J.D. Sau, and S. Das Sarma), *Phys. Rev. B* **91**, 214513 (2015). arXiv:1503.06801
356. Universal Spin-Triplet Superconducting Correlations of Majorana Fermions (X. Liu, J.D. Sau, and S. Das Sarma), *Phys. Rev. B* **92**, 014513 (2015). arXiv:1501.07273
357. Abelian and Non-Abelian States in $\nu=2/3$ Bilayer Quantum Hall Systems (M.R. Peterson, Y.L. Wu, M. Cheng, M. Barkeshli, Z. Wang, and S. Das Sarma), *Phys. Rev. B* **92**, 035103 (2015). arXiv:1502.02671
358. Interacting Dirac Liquid in Three-Dimensional Semimetals (J. Hofmann, E. Barnes, and S. Das Sarma), *Phys. Rev. B* **92**, 045104 (2015). arXiv:1410.1547
359. Axial Anomaly and Longitudinal Magnetoresistance of a Generic Three-Dimensional Metal (P. Goswami, J.H. Pixley, and S. Das Sarma), *Phys. Rev. B* **92**, 075205 (2015). arXiv:1503.02069
360. Many-Body Effects and Ultraviolet Renormalization in Three Dimensional Dirac Materials (R.E. Throckmorton, J. Hofmann, E. Barnes, and S. Das Sarma), *Phys. Rev. B* **92**, 115101 (2015). arXiv:1505.05154
361. Effects of Large Induced Superconducting Gap on Semiconductor Majorana Nanowires (W.S. Cole, S. Das Sarma, and T.D. Stanescu), *Phys. Rev. B* **92**, 174511 (2015). arXiv:1505.01482
362. Bulk Disorder in the Superconductor Affects Proximity-Induced Topological Superconductivity (H.Y. Hui, J.D. Sau, and S. Das Sarma), *Phys. Rev. B* **92**, 174512 (2015). arXiv:1508.04134
363. Temperature-Dependent Many-Body Effects in Dirac-Weyl Materials: Interacting Compressibility and Quasiparticle Velocity (F. Setiawan and S. Das Sarma), *Phys. Rev. B* **92**, 235103 (2015). arXiv:1509.05067
364. Spontaneous Symmetry Breaking and Quantum Hall Valley Ordering on the Surface of Topological Hexaborides (X. Li, B. Roy, and S. Das Sarma), *Phys. Rev. B* **92**, 235144 (2015). arXiv:1507.06647
365. Disorder-driven itinerant quantum criticality of three-dimensional massless Dirac fermions (J. H. Pixley, Pallab Goswami, and S. Das Sarma), *Phys. Rev. B* **93**, 085103

(2016). arXiv:1505.07938

366. A Practical Phase Gate for Producing Bell Violations in Majorana Wires (David J. Clarke, Jay D. Sau, and Sankar Das Sarma), Phys. Rev. X **6**, 021005 (2016). arXiv:1510.00007
367. Noise-induced collective quantum state preservation in spin qubit arrays (Edwin Barnes, Dong-Ling Deng, Robert E. Throckmorton, Yang-Le Wu, and S. Das Sarma), Phys. Rev. B **93**, 085420 (2016). arXiv:1510.03862
368. Understanding analog quantum simulation dynamics in coupled ion-trap qubits (Yang-Le Wu and S. Das Sarma), Phys. Rev. A **93**, 022332 (2016). arXiv:1512.00848
369. Competing ground states of strongly correlated bosons in the Harper-Hofstadter-Mott model (Stefan S. Natu, Erich J. Mueller, and S. Das Sarma), Phys. Rev. A **93**, 063610 (2016). arXiv:1601.06172
370. Erratum: Diffusive quantum criticality in three-dimensional disordered Dirac semimetals [Phys. Rev. B 90, 241112(R) (2014)] (Bitan Roy and S. Das Sarma), Phys. Rev. B **93**, 119911(E) (2016). arXiv:1602.03470
371. Quantum nonergodicity and fermion localization in a system with a single-particle mobility edge (Xiaopeng Li, J. H. Pixley, Dong-Ling Deng, Sriram Ganeshan, and S. Das Sarma), Phys. Rev. B **93**, 184204 (2016). arXiv:1602.01849
372. Rare-Region-Induced Avoided Quantum Criticality in Disordered Three-Dimensional Dirac and Weyl Semimetals (J. H. Pixley, David A. Huse, and S. Das Sarma), Phys. Rev. X **6**, 021042 (2016). arXiv:1602.02742
373. Fast control of semiconductor qubits beyond the rotating-wave approximation (Yang Song, J.P. Kestner, Xin Wang, and S. Das Sarma), Phys. Rev. A **94**, 012321 (2016). arXiv:1602.05201
374. Majorana spintronics (Xin Liu, Xiaopeng Li, Dong-Ling Deng, Xiong-Jun Liu, and S. Das Sarma), Phys. Rev. B **94**, 014511 (2016). arXiv:1602.08093
375. How to infer non-Abelian statistics and topological visibility from tunneling conductance properties of realistic Majorana nanowires (S. Das Sarma, Amit Nag, and Jay D. Sau), Phys. Rev. B **94**, 035143 (2016). arXiv: 1603.00041
376. Dynamics of two coupled semiconductor spin qubits in a noisy environment (S. Das Sarma, Robert E. Throckmorton, and Yang-Le Wu), Phys. Rev. B **94**, 045435 (2016). arXiv:1604.06110
377. Enigmatic 12/5 fractional quantum Hall effect (Kiryl Pakrouski, Matthias Troyer, Yang-Le Wu, Sankar Das Sarma, and Michael R. Peterson), Phys. Rev. B **94**, 075108 (2016).

arXiv:1604.04610

IV. Publications in Other Letter Journals

1. Self-Consistent Theory of Screening in a Two Dimensional Electron Gas Under Strong Magnetic Field (S. Das Sarma), Solid State Commun. **36**, 357 (1980).
2. Cation and Anion Ideal Vacancy Induced Gap Levels in Some III-V Compound Semiconductors (S. Das Sarma and A. Madhukar), Solid State Commun. **38**, 183 (1981).
3. Collective Excitations on Degenerate Polar Semiconductor Surface with a Depletion Layer (S. Das Sarma, J.J. Quinn, and A. Eguiluz), Solid State Commun. **38**, 731 (1981).
4. Energy Levels of n-channel Accumulation Layer on InP Surface (S. Das Sarma), Solid State Commun. **41**, 483 (1982).
5. Higher Order Corrections to Physisorption Interaction between an Adsorbed Atom and a Metal Surface (S. Das Sarma and S.M. Paik), Chem. Phys. Lett. **115**, 525 (1985).
6. On the Self-Trapping of an Electron Due to Lattice Interaction (S. Das Sarma), Solid State Commun. **54**, 1067 (1985).
7. Molecular Dynamics Study of Self-Diffusion in a Thin Film Lennard-Jones System (S. Das Sarma, K.E. Khor, S.M. Paik, and T.R. Kirkpatrick), Chem. Phys. Lett. **120**, 97 (1985).
8. Theory of Helium Adsorption on Noble Metals (S.M. Paik and S. Das Sarma), Solid State Commun. **58**, 223 (1986).
9. On the Saturation of the Van der Waals Potential near a Metal Surface (S. Das Sarma and S.M. Paik), Chem. Phys. Lett. **126**, 526 (1986).
10. Simulation of Self-Diffusion on Silicon Surface Using Stillinger-Weber Potential (K.E. Khor and S. Das Sarma), Chem. Phys. Lett. **134**, 43 (1987).
11. Numerical Simulation of Surface Diffusion on a Rigid Substrate (S.M. Paik and S. Das Sarma), Chem. Phys. Lett. **135**, 128 (1987).
12. Energy Loss Rate of Electrons in Quantum Wells (J.R. Senna and S. Das Sarma), Solid State Commun. **64**, 1397 (1987).
13. Quantum Interference between Landau Levels in Quasi-One Dimensional Systems (X.C. Xie and S. Das Sarma), Solid State Commun. **68**, 697 (1988).

14. Adsorbate Dynamics on a Lattice-Matched Substrate (S.M. Paik and S. Das Sarma), Surf. Sci. Lett. **208**, L53 (1989).
15. Adsorbate Dynamics on a Lattice-Mismatched Substrate (S.M. Paik and S. Das Sarma), Surf. Sci. Lett. **208**, L61 (1989).
16. Adsorbate Dynamics on a Substrate: III. Surface Structural Disorder (S.M. Paik and S. Das Sarma), Surf. Sci. Lett. **219**, L607 (1989).
17. Surface Kinetics Driven Annealing and Phase-Segregation in Non-Equilibrium Crystal Growth (A. Kobayashi and S. Das Sarma), Surf. Sci. Lett. **223**, L920 (1989).
18. Kinetic Simulation of Molecular Beam Epitaxial Growth Dynamics (I.K. Marmorkos and S. Das Sarma), Surf. Sci. Lett. **237**, L411 (1990).
19. Theory of Pairing in the Anyon Model (X.C. Xie, H.A. Fertig, and S. Das Sarma), Modern Phys. Lett. **4**, 1265 (1990).
20. Crossover Effects in Models of Kinetic Growth with Surface Diffusion (S. Das Sarma, Z.W. Lai and P.I. Tamborenea), Surf. Sci. Lett. **268**, L311 (1992).
21. Large Negative Differential Resistance in a Quasi-One Dimensional Quantum Wire (B.Y.K. Hu and S. Das Sarma), App. Phys. Lett. **61**, 1208 (1992).
22. Universality in Two-Dimensional Landau Level Localization (D.Z. Liu and S. Das Sarma), Mod. Phys. Lett. B **7**, 449 (1993).
23. Collective Excitations in Asymmetric Parabolic Quantum Wells (P.I. Tamborenea and S. Das Sarma), Solid State Commun. **89**, 1009 (1994).
24. Shakeup Effects on Photoluminescence from the Wigner Crystal (D.Z. Liu, H.A. Fertig, and S. Das Sarma), Solid State Commun. **95**, 435 (1995).
25. Mean-Field Theory for the Spin-Triplet Exciton Liquid in Quantum Wells (R.J. Radtke and S. Das Sarma), Solid State Commun. **96**, 215 (1995).
26. Collective Modes in a Symmetry-Broken Phase: Antiferromagnetically Correlated Quantum Wells (R.J. Radtke and S. Das Sarma), Solid State Commun. **98**, 771 (1996).
27. Spatial Correlation Effect of Ionized Impurities on Relaxation and Scattering Times in High-Mobility GaAs Heterojunctions (T. Kawamura and S. Das Sarma), Solid State Commun. **100**, 411 (1996).

28. Coherent Magnetotransport through an Artificial Molecule (C.A. Stafford and S. Das Sarma), Phys. Lett. A **230**, 73 (1997).
29. Unusual Temperature Dependent Resistivity of a Semiconductor Quantum Wire (L. Zheng and S. Das Sarma), Solid State Commun. **104**, 629 (1997).
30. A Few Electrons per Ion Scenario for the $B=0$ Metal-Insulator Transition in Two Dimensions (T.M. Klapwijk and S. Das Sarma), Solid State Commun. **110**, 581 (1999).
31. A Discrete Model for Nonequilibrium Growth under Surface Diffusion Bias (S. Das Sarma and P. Punyindu), Surf. Sci. Lett. **424**, L339 (1999). cond-mat/9901330
32. Nonuniversal Mound Formation in Nonequilibrium Surface Growth (S. Das Sarma, P. Punyindu, and Z. Toroczkai), Surf. Sci. Lett. **457**, L369 (2000). cond-mat/0002465
33. Bilayer Quantum Hall Systems: Spin-Pseudospin Symmetry Breaking and Quantum Phase Transitions (S. Das Sarma and E. Demler), Solid State Commun. **117**, issue 3, 141 (2001). Invited Review in the special issue “Advancing Frontiers of Condensed Matter Sciences” cond-mat/0009372
34. Spin Electronics and Spin Computation (S. Das Sarma, J. Fabian, X. Hu, and I. Zutic), Solid State Commun. **119**, issue 4-5, 207 (2001). Invited Review in the special issue “Mesoscopic Spins in Nanostructures”
35. Proposal for a Spin –Polarized Solar Battery (I. Zutic, J. Fabian, and S. Das Sarma), Appl. Phys. Lett. **79**, 1558 (2001). cond-mat/0104416
36. Quantum Hall Stripe Phases at Integer Filling Factors (E. Demler, D.W. Wang, S. Das Sarma, and B.I. Halperin), Solid State Commun. **123**, issue 6-7, p. 243 (2002). Invited Review. cond-mat/0110126
37. Proposal for All-Electrical Measurement of T_1 in Semiconductors (I. Zutic, J. Fabian, and S. Das Sarma), App. Phys. Lett. **82**, 221 (2003). cond-mat/0205177
38. Co-doped $\text{La}_{1-x}\text{Sr}_x\text{TiO}_3$: A Diluted Magnetic Metal with High Curie Temperature (Y.G. Zhao, S.B. Ogale, S.E. Lofland, C. Lanci, J.P. Buban, N.D. Browning, S. Das Sarma, A.J. Millis, V.N. Kulkarni, R. Choudhary, R.L. Greene, and T. Venkatesan), App. Phys. Lett. **83**, 2199 (2003). cond-mat/0209267
39. How to Make Semiconductors Ferromagnetic: A First Course on Spintronics (S. Das Sarma, E.H. Hwang, and A. Kaminski), Solid State Commun. **127**, issue 2, 99 (2003). Invited Review in the special issue “Quantum Phases on the Nanoscale”

40. Magnetic Bipolar Transistor (J. Fabian, I. Zutic, and S. Das Sarma), *Appl. Phys. Lett.* **84**, 85-87 (2004). cond-mat/0307014
41. Collective Modes and Raman Scattering in One Dimensional Electron Systems (D.W. Wang, A.J. Millis, and S. Das Sarma), *Solid State Commun.* **131**, issue 9-10, 637-645, (2004). Invited Review in the special issue “Advancing Frontiers in Nanoscale Phenomena” cond-mat/0406121
42. Spin Quantum Computation in Silicon Nanostructures (S. Das Sarma, R. de Sousa, X. Hu, and B. Koiller), *Solid State Commun.* **133**, issue 11, 737 (2005). Invited Review in the special issue “Isotope Effects in Silicon” cond-mat/0411755
43. The So-called Two Dimensional Metal-insulator Transition (S. Das Sarma and E.H. Hwang), *Solid State Commun.* **135**, issues 9-10, 579 (2005). Invited Review. cond-mat/0411528
44. Transport in Suspended Graphene (S. Adam and S. Das Sarma), *Solid State Commun. (Fast Track)* **146**, 356 (2008). arXiv:0803.0735
45. Ballistic Hot Electron Transport in Graphene (W.K. Tse, E.H. Hwang, and S. Das Sarma), *Appl. Phys. Lett.* **93**, 023128 (2008). arXiv:0806.0436
46. Theory of Charged Impurity Scattering in Two-Dimensional Graphene (S. Adam, E.H. Hwang, E. Rossi, and S. Das Sarma), *Solid State Commun.* **149**, issues 27-28, 1072-1079 (2009). Invited Review in the special issue “Graphene”. arXiv:0812.1795
47. The Enigma of the $\nu=0$ Quantum Hall Effect in Graphene (S. Das Sarma and K. Yang), *Solid State Commun. (Fast Track)* **149**, issues 37-38, 1502-1506 (2009). arXiv:0906.2209
48. Dephasing of Si Spin Qubits Due to Charge Noise (D. Culcer, X. Hu, and S. Das Sarma), *Appl. Phys. Lett.* **95**, 073102 (2009). arXiv:0906.4555
49. Scattering Mechanism in Modulation-Doped Shallow Two-Dimensional Electron Gases (D. Laroche, S. Das Sarma, G. Gervais, M.P. Lilly, and J.L. Reno), *Appl. Phys. Lett.* **96**, 162112 (2010). arXiv:0908.2104
50. Topological Semimetal in a Fermionic Optical Lattice (K. Sun, W.V. Liu, A. Hemmerich, and S. Das Sarma), *Nature Physics* **8**, 67 (2012). arXiv:1011.4301
51. Realizing a Robust Practical Majorana Chain in a Quantum-Dot-Superconductor Linear Array (J.D. Sau and S. Das Sarma), *Nature Commun.* **3**:964 (2012). arXiv:1111.6600
52. Graphene on SrTiO₃ (S. Das Sarma and Q. Li), *Solid State Commun. (Fast Track)* **152**, 1795 (2012). arXiv:1112.4484

53. Composite Pulses for Robust Universal Control of Singlet-Triplet Qubits (X. Wang, L.S. Bishop, J.P. Kestner, E. Barnes, K. Sun, and S. Das Sarma), *Nature Commun.* **3**:997 (2012). arXiv:1202.5032
54. Chiral Magnetism and Spontaneous Spin Hall Effect of Interacting Bose Superfluids (X.P. Li, S.S. Natu, A. Paramekanti, and S. Das Sarma), *Nature Commun.* **5**:5174 (2014). arXiv:1405.6715
55. Majorana Fermions in Ferromagnetic Chains on the Surface of Bulk Spin-Orbit Coupled s-wave Superconductors (H.Y. Hui, P.M.R. Brydon, J.D. Sau, S. Tewari, and S. Das Sarma), *Nature Sci. Rep.* **5**, 8880 (2015). arXiv:1407.7519
56. Exotic Topological Density Waves in Cold Atomic Rydberg-Dressed Fermions (X.P. Li and S. Das Sarma), *Nature Commun.* **6**:7137 (2015). arXiv:1501.05320
57. Robust Quantum Control using Smooth Pulses and Topological Winding (E. Barnes, X. Wang, and S. Das Sarma), *Nature Sci. Rep.* **5**, 12685 (2015). arXiv:1409.7063
58. Improving the Gate Fidelity of Capacitively Coupled Spin Qubits (X. Wang, E. Barnes, and S. Das Sarma), *NPJ Quantum Information* **1**, 15003 (2015). arXiv:1412.7756
59. Majorana Zero Modes and Topological Quantum Computation (S. Das Sarma, M. Freedman, and C. Nayak), *NPJ Quantum Information* **1**, 15001 (2015). arXiv:1501.02813
60. Screening and Transport in 2D Semiconductor Systems at Low Temperatures (S. Das Sarma and E.H. Hwang), *Nature Sci. Rep.* **5**, 16655 (2015). arXiv:1508.01195

V. Books, Reviews, and Other Notable Publications

1. Optical Phonon Interaction Effects in Two-Dimensional Semiconductor Structures (S. Das Sarma and B.A. Mason), *Annals of Physics* **163**, 78 (1985).
2. New Fractional Quantum Hall States in Double Electron Layer Systems (S. Das Sarma and R.E. Prange), *Science* **256**, 1284 (1992).
3. Resource Letter QIMS-1: Quantum Interference in Macroscopic Samples (S. Das Sarma, T. Kawamura, and S. Washburn), *Am. J. Phys.* **63**, 683 (1995).
4. Interacting Electrons (S. Das Sarma), *Science* **275**, 1749 (1997).
5. Spintronics (S. Das Sarma), *American Scientist* **89**, 516 (2001).

6. Advances in Studies of Electrons in Low Dimensional Structures (Ed.: P. Hawrylak and S. Das Sarma) a special issue of Solid State Commun. **127**, issue 12, 753-834 (2003).
7. Ferromagnetic Semiconductors: A Giant Appears in Spintronics (S. Das Sarma), Nature Materials **2** (5), 292-294 (2003).
8. Spintronics: Fundamentals and Applications (I. Zutic, J. Fabian, and S. Das Sarma), Rev. Mod. Physics **76**, 323 (2004). cond-mat/0405528
9. Editor of the book Perspectives in Quantum Hall Effects (Wiley, New York, 1996; Wiley-VCH, Berlin, 2005).
10. Pseudospin and Quantum Computation in Semiconductor Nanostructures (V.W. Scarola, K. Park, and S. Das Sarma), New Journal of Physics **7**, 177 (2005). cond-mat/0503257
11. Topological Quantum Computation (S. Das Sarma, M. Freedman, and C. Nayak), Physics Today **59**, 32 (2006).
12. Emergent Phenomena in Quantum Hall Systems (Ed.: S. Das Sarma, J. Eisenstein, V. Pellegrini, and S. Simon) a special issue of Solid State Commun. **140**, issue 2, 51-106 (2006).
13. Anyonic Braiding in Optical Lattices (C. Zhang, V.M. Scarola, S. Tewari, S. Das Sarma) PNAS **104**, 18415 (2007). arXiv:quant-ph/0609101
14. Persistence and Survival in Equilibrium Step Fluctuations (M. Constantin, C. Dasgupta, S. Das Sarma, D.B. Dougherty, and E.D. Williams), J. Stat. Mechanics **07**, P07011 (2007). cond-mat/0702690
15. A Self-Consistent Theory for Graphene Transport (S. Adam, E.H. Hwang, V.M. Galitski, S. Das Sarma) PNAS **104**, 18392 (2007). arXiv:0705.1540
16. Theory of Carrier Mediated Ferromagnetism in Dilute Magnetic Oxides (M.J. Calderon and S. Das Sarma), Annals of Physics **322**, 2618 (2007). cond-mat/0603182
17. Exploring Graphene – Recent Research Advances (Ed.: S. Das Sarma, A.K. Geim, P. Kim, and A.H. MacDonald) a special issue of Solid State Commun. **143**, issues 1-2, 1-126 (2007).
18. Non-Abelian Anyons and Topological Quantum Computation (C. Nayak, S. Simon, A. Stern, M. Freedman, and S. Das Sarma), Rev. Mod. Physics **80**, 1083 (2008). arXiv:0707.1889
19. A Theorem for the Existence of Majorana Fermion Modes in Spin-Orbit-Coupled Semiconductors (S. Tewari, J.D. Sau, and S. Das Sarma), Annals of Physics **325**, 219

(2010). arXiv:0910.4763

20. Graphene (Ed.: S. Das Sarma, V. Falko, A.K. Geim, P. Kim, and A.H. MacDonald) a special issue of Solid State Commun., **149**, issues 27-28, 1039-1160 (2009).
21. Electronic Transport in Two-Dimensional Graphene (S. Das Sarma, S. Adam, E.H. Hwang, and E. Rossi), Rev. Mod. Physics **83**, 407 (2011). arXiv:1003.4731
22. Topologically Non-Trivial Superconductivity in Spin-Orbit-Coupled Systems: Bulk Phases and Quantum Phase Transitions (S. Tewari, T.D. Stanescu, J.D. Sau, and S. Das Sarma), New J. Phys. **13**, 065004 (2011). arXiv:1012.0057
23. Tunneling Transport in NSN Majorana Junctions across the Topological Quantum Phase Transition (A.M. Lobos and S. Das Sarma), New J. Phys. **17**, 065010 (2015). arXiv:1407.0694
24. Substrate-Induced Majorana Renormalization in Topological Nanowires (S. Das Sarma, H.Y. Hui, P.M.R. Brydon, and J.D. Sau), New J. Phys. **17**, 075001 (2015). arXiv:1503.00594

Total Number of Citations to Das Sarma's Work (1980-2015):

>41,541 (h-index=86) according to ISI Web of Science Annual Science Citation Index

~53,000 (h-index=97) according to Google Scholars

Total Amount of Federal Funding to Das Sarma (1985-2015): 34 million dollars

Total Number of PhD Advisees (1985-2015): 28

Total Number of Postdoctoral Advisees (1985-2015): 112