

Curriculum Vitae

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Published articles in APS journals

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58. Majorana Zero Modes and Topological Quantum Computation (S. Das Sarma, M. Freedman, and C. Nayak), *NPJ Quantum Information* **1**, 15001 (2015). arXiv:1501.02813
59. 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
60. Screening and Transport in 2D Semiconductor Systems at Low Temperatures (S. Das Sarma and E.H. Hwang), *Scientific Reports (Nature)* **5**, 16655 (2015). arXiv:1508.01195
61. Universal optical conductivity of a disordered Weyl semimetal (Bitan Roy, Vladimir Juricic, and Sankar Das Sarma), *Scientific Reports (Nature)* **6**, 32446 (2016). arXiv:1603.00017
62. Statistical exchange-coupling errors and the practicality of scalable silicon donor qubits (Yang Song and S. Das Sarma), *Appl. Phys. Lett.* **109**, 253113 (2016). arXiv:1611.02808
63. Quantum simulation of a Fermi–Hubbard model using a semiconductor quantum dot array (T. Hensgens, T. Fujita, L. Janssen, Xiao Li, C. J. Van Diepen, C. Reichl, W. Wegscheider, S. Das Sarma & L. M. K. Vandersypen), *Nature* **548** (7665):70 (2017). arXiv:1702.07511
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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 (1978-2018):

>55,000 (h-index=98) according to Web of Science

>72,000 (h-index=113) according to Google Scholars

Total Amount of Funding to Das Sarma (1985-2018): 40 million dollars

Total Number of PhD Advisees (1985-2018): 30

Total Number of Postdoctoral Advisees (1985-2018): 120