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EDUCATION Ph.D. in Physics, University of Maryland at College Park (1985)

RESEARCH FIELD condensed matter and low temperature physics:
quantum Hall effect, tunneling in nanostructures

AWARDS AND HONORS

Alfred P. Sloan Fellowship (1989)
US Presidential Young Investigator Award (1989)
Fellow of American Physical Society (1998)

SELECTED PUBLICATIONS

1. *Observation of Impurity Cyclotron Resonance in HgCdTe*
Physical Review Letters **56**, 968-971 (1985)
V.J.Goldman, H.D.Drew, M.Shayegan and D.A.Nelson

2. *Anomalous Hall Effect Below the Magnetic-Field-Induced Metal-Insulator Transition in Narrow-Gap Semiconductors*
Physical Review Letters **57**, 1056-1059 (1986)
V.J.Goldman, M.Shayegan and H.D.Drew

3. *Resonant tunneling in magnetic fields: Evidence for space-charge buildup*
Physical Review (Rapid Communication) B **35**, 9387-9390 (1987)
V.J.Goldman, D.C.Tsui and J.E.Cunningham

4. *Observation of Intrinsic Bistability In Resonant Tunneling Structures*
Physical Review Letters **58**, 1256-1259 (1987)
V.J.Goldman, D.C.Tsui and J.E.Cunningham

5. *Evidence for LO-phonon-emission assisted tunneling in double barrier heterostructures*
Physical Review B **36**, 7635-7637 (1987)
V.J.Goldman, D.C.Tsui and J.E.Cunningham

6. *Evidence for the Fractional Quantum Hall State at* $\nu = 1/7$
Physical Review Letters **61**, 881-884 (1988)
V.J.Goldman, M.Shayegan and D.C.Tsui

7. *Resonant Tunneling and Intrinsic Bistability in Asymmetric Double-Barrier Heterostructures*
Applied Physics Letters **53**, 1408-1410 (1988)
A.Zaslavsky, V.J.Goldman, D.C.Tsui and J.E.Cunningham

8. *Evidence for Two-Dimensional Quantum Wigner Crystal*
Physical Review Letters **65**, 2189-2192 (1990)
V.J.Goldman, M.Santos, M.Shayegan and J.E.Cunningham

9. *Resonant Tunneling in Submicron Double-Barrier Heterostructures*
Applied Physics Letters **58**, 747-749 (1991)
B.Su, V.J.Goldman, M.Santos and M.Shayegan

10. *Edge States in the Fractional Quantum Hall Effect*
Physical Review Letters **67**, 749-752 (1991)
J.K.Wang and V.J.Goldman

11. *On the Possibility of Infrared Laser in a Resonant Tunneling Structure*
Applied Physics Letters **59**, 2636-2638 (1991)
A.Kastalsky, V.J.Goldman and J.H.Abeles

12. *Observation of Single-Electron Charging in Double-Barrier Heterostructures*

Science **255**, 313-315 (1992)
B.Su, V.J.Goldman and J.E.Cunningham

13. *Single-electron tunneling in nanometer double-barrier heterostructure devices*
Physical Review B **46**, 7644-7655 (1992)
B.Su, V.J.Goldman and J.E.Cunningham

14. *Universality of the Hall Effect in a Magnetic-Field-Localized Two-Dimensional Electron System*
Physical Review Letters **70**, 647-650 (1993)
V.J.Goldman, J.K.Wang, B.Su and M.Shayegan

15. *Detection of Composite Fermions by Magnetic Focusing*
Physical Review Letters **72**, 2065-2068 (1994)
V.J.Goldman, B.Su and J.K.Jain

16. *Resonant Tunneling in Quantum Hall Effect: Measurement of Fractional Charge*
Science **267**, 1010-1012 (1995)
V.J.Goldman and B.Su

17. *Energetics of quantum antidot states in quantum Hall regime*
Physical Review (Rapid Communication) B **57**, R4273-4276 (1998)
I.J.Maasilta and V.J.Goldman

18. *Invariance of charge of Laughlin quasiparticles*
Physical Review B **64**, 085319-1-5 (2001)
V.J.Goldman, I.Karakurt, J.Liu, and A.Zaslavsky

19. *Fractional statistics of Laughlin quasiparticles in quantum antidots*
Physical Review B **71**, 153303, 1-3 (2005)
V.J.Goldman, J.Liu, and A.Zaslavsky

20. *Realization of a Laughlin quasiparticle interferometer: Observation of fractional statistics*
Physical Review B **72**, 075342, 1-8 (2005)
F.E.Camino, W.Zhou, and V.J.Goldman

21. *Aharonov-Bohm electron interferometer in the integer quantum Hall regime*
Physical Review B **72**, 155313, 1-6 (2005)
F.E.Camino, W.Zhou, and V.J.Goldman

22. *Aharonov-Bohm Superperiod in a Laughlin Quasiparticle Interferometer*
Physical Review Letters **95**, 246802, 1-4 (2005)
F.E.Camino, W.Zhou, and V.J.Goldman

23. *e*/3 *Laughlin Quasiparticle Primary-Filling* $\nu = 1/3$ *Interferometer*
Physical Review Letters **98**, 076805, 1-4 (2007)
F.E.Camino, W.Zhou, and V.J.Goldman

24. *Electron interferometry in quantum Hall regime: Aharonov-Bohm effect of interacting electrons*
Physical Review B **80**, 125310, 1-6 (2009)
P.V.Lin, F.E.Camino, and V.J.Goldman