Fei Zhou

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Education and Jobs

a) Assistant professor, University of British Columbia, Aug 2003-current.
b) Assistant professor, ITP, Utrecht University, Oct 2000- July 2003.
c) Consultant, NECRI, Princeton, July 2000- Oct 2000.
d) Research Associate, Physics Department, Princeton University, Sept 1997- July 2000.

Ten most relevant publications (out of 14 publications in 2001-2005)

1. *Quantum Phase Pumping*, Fei Zhou, Int. Jour. Mod. Phys. B **15**, 117-124 (2001) (8 pages).
2. *Spin correlations and discrete Symmetries in Spinor Bose-Einstein Condensates*, Fei Zhou, Phys. Rev.Lett. **87**, 080401-1---4 (2001) (4 pages).
3. *Spinor Bosonic Atoms in Optical Lattices: Symmetry Breaking and Fractionalization*, E. Demler and F. Zhou, Phys. Rev. Lett. **88**, 163001-1---4 (2002) (4 pages).
4. *Spin Ordering and Quasi-Particles in Spin Triplet Superconductors*, Fei Zhou, Phys. Rev. B **65**, 220514-1---4 (**RC**) (2002) (4 pages)**.**
5. *Quantum Spin Nematic States in BECs*, Fei Zhou, Int. Jour. Mod. Phys. B **17** (14), 2643 -2698 (2003) (56 pages).
6. *Mott Insulating States of Spin-One Bosons in Low Dimensional Lattices*, Fei Zhou, Europhys. Lett. **63** (4), 505 (2003).
7. *Spin Singlet Mott States and Evidence for Spin Singlet Quantum Condensates of Spin-One Bosons in Lattices*, F. Zhou and M. Snoke, Annals of Physics **308**, 692-738 (2003) (47 pages).
8. *Microscopic Wave Functions of Spin Singlet and Spin Nematic Mott States of Spin-One Bosons in High Dimensional Bipartite Lattices*, M. Snoke and F. Zhou, Phys. Rev. B **69**, 094410-1---9 (2004) (9 pages).
9. *Topological spin pumps*, F. Zhou, Phys. Rev. B **70**, 125321-1---18 (2004) (18 pages).
10. *Magnetically stabilized nematic order. I. Three-dimensional bipartite optical lattices*, F. Zhou, M. Snoek, J. Wiemer and I. Affleck, Phys. Rev. B **70**, 184434-1---16 (2004) (16 pages).

Competitive Grant Funding (2000-2005)

a) *Quantum spin nematic states in BECs*, Euro 42k per Annum, Project 01GM3406 (2002-2006) by the FOM, the Netherlands. P.I.: Fei Zhou.
b) *Collective magnetic properties in quantum solids*, Euro 50k per Annum, Project 00SF08 (2001-2002) funded by the FOM , the Netherlands. P.I.: Fei Zhou.
c) *Mechanism of decoherence*, Euro 42k per Annum, Project 00PR1929 (2001-2005), funded by the NWO, the Netherlands. P.I.: Fei Zhou.
d) *Strongly correlated states of spin-one bosons in optical lattices* (2004-2007), CAD 28k per Annum, a Discovery grant from NSERC, Canada. P.I.: Fei Zhou.

Award

A. P. Sloan fellowship (2005-2007)**,** from Alfred P. Sloan Foundation, New York.

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