

Marcel Franz
(PhD Rochester, 1994)

Employment history

2005 – present	Associate Professor, University of British Columbia
2000 – 2005	Assistant Professor, University of British Columbia
1997 – 2000	Postdoctoral Fellow, Johns Hopkins University
1994 – 1996	Postdoctoral Fellow, McMaster University

Ten most significant publications over past 5 years (Total over past 5 years 20)

1. Franz, “*Crystalline electron pairs*”, Science **305**, 1410-1411 (2004).
2. A. Hosseini, D.M. Broun, D.E. Sheehy, T.P. Davis, M. Franz, Ruixing Liang, W.N. Hardy, D.A. Bonn, “*Survival of the d-wave superconducting state near the edge of antiferromagnetism in the cuprate phase diagram*”, Phys. Rev. Lett. **93**, 107003 (2004)
3. E. Sheehy, T.P. Davis, and M. Franz, “*Nodal Protectorate: A Unified Theory of the ab-plane and c-axis Penetration Depths of Underdoped cuprates*”, Phys. Rev. B. **70**, 054510 (2004).
4. T. Pereg-Barnea, and M. Franz , “*Theory of the quasiparticle interference patterns in the pseudogap phase of the cuprate superconductors*”, Phys. Rev. B **68**, 180506(R) (2003).
5. T. Pereg-Barnea and M. Franz, “*Coexistence of bulk antiferromagnetic order and superconductivity in the QED3 theory of copper oxides*”, Phys. Rev. B **67**, 060503(R) (2003).
6. M. Franz, T. Pereg-Barnea, D.E. Sheehy and Z. Tesanovic, “*Gauge invariant response functions in Algebraic Fermi liquids*”, Phys. Rev. B **68**, 024508 (2003).
7. M. Franz, D. E. Sheehy, and Z. Tesanovic, “*Magnetic field induced charge and spin instabilities in cuprate superconductors*”, Phys. Rev. Lett. **88**, 257005 (2002).
8. M. Franz, Z. Tesanovic, and O. Vafeek, “*QED3 theory of pairing pseudogap in cuprates: From d-wave superconductor to antiferromagnet via algebraic Fermi liquid*”, Phys. Rev. B **66**, 054535 (2002).
9. O. Vafeek, Z. Tesanovic, and M. Franz, “*Relativity Restored: Dirac Anisotropy in QED3*”, Phys. Rev. Lett. **89**, 157003 (2002).
10. M. Franz and Z. Tesanovic, “*Algebraic Fermi liquid from phase fluctuations: QED3 theory of cuprate superconductors*”, Phys. Rev. Lett. **87**, 257003 (2001).

Competitive grant funding over past 5 years

1. NSERC Discover grant “*Superconductivity in strongly correlated systems*” C\$30,000 per year 2001-2006, Principal Investigator: M. Franz
2. A. P. Sloan Fellowship, US\$20,000 per year 2002-2004
3. UBC Startup fund, C\$60,000, 2000.