

Curriculum Vitae

Name: Haim Beidenkopf
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Birth: 1977, Israel
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Positions:

2012-current Senior Researcher, Department of Condensed Matter,
Weizmann Institute of Science.

2009-2012 Post-doctorate in physics, Department of Condensed Matter,
Princeton University.

Research topic: *Scanning tunneling microscopy and spectroscopy studies of topological insulators.*

Advisor: Prof. Ali Yazdani

Academics:

2005-2009 Ph.D. in physics, Department of Condensed Matter, Weizmann
Institute.

Dissertation topic: *"Thermodynamics and Dynamics of the Second-order Vortex Glass Transition in $Bi_2Sr_2CaCu_2O_8$ ".*

Thesis advisor: Prof. Eli Zeldov

2004-2005 M.Sc. in physics, Department of Condensed Matter, Weizmann
Institute.

Dissertation topic: *"Equilibrium B-T phase diagram of the vortex matter in $Bi_2Sr_2CaCu_2O_8$ ".*

Thesis advisor: Prof. Eli Zeldov

2001-2003 B.Sc. in physics and computer science, Tel-Aviv University.

Awards and Scholarships:

- 2012-2009 Dicke postdoctoral Fellowship, Princeton University.
- 2009 Fulbright Post-doctorate Fellowship (renounced).
- 2009 John F. Kennedy Prize for academic excellence and scientific accomplishments, Feinberg graduate school of the Weizmann Institute of Science.
- 2010-2006 Adams Fellowship for Doctoral Student, Israel Academy of Sciences and Humanities.
- 2007 Otto Schwartz prize for excellence.
- 2007 Feinberg graduate school dean's list of honor – 2007.
- 2006 Otto Schwartz prize for excellence.
- 2006 Feinberg graduate school dean's list of honor – 2006.
- 2001 Excellence prize - Department of Physics, Tel-Aviv University.

Recent publications:

1. Interplay between ferromagnetism, surface states, and quantum corrections in a magnetically doped topological insulator

D. Zhang, A. Richardella, D. W. Rench, S. Y. Xu, A. Kandala, T. C. Flanagan, H. Beidenkopf, A. L. Yeats, B. B. Buckley, P. V. Klimov, D. D. Awschalom, A. Yazdani, P. Schiffer, M. Z. Hasan, N. Samarth
Phys. Rev. B **86**, 205127 (2012)

2. Defects and high bulk resistivities in the Bi-rich tetradymite topological insulator $\text{Bi}_{2+x}\text{Te}_{2-x}\text{Se}$

S. Jia, H. Beidenkopf, I. Drozdov, M. K. Fuccillo, J. Seo, J. Xiong, N. P. Ong, Ali Yazdani, R. J. Cava
Phys. Rev. B **86**, 165119 (2012)

3. Spatial Fluctuations of Helical Dirac Fermions on the Surface of Topological Insulators

H. Beidenkopf, P. Roushan, J. Seo, L. Gorman, I. Drozdov, Y.S. Hor, R.J. Cava, A. Yazdani
Nature Physics **7**, 939 (2011)

4. Transmission of topological surface states through surface barriers

J. Seo, P. Roushan, [H. Beidenkopf](#), Y.S. Hor, R.J. Cava, A. Yazdani
Nature **466**, 343 (2010)

5. Development of ferromagnetism in the doped topological insulator $\text{Bi}_{2-x}\text{Mn}_x\text{Te}_3$

Y. S. Hor, P. Roushan, [H. Beidenkopf](#), J. Seo, D. Qu, J. G. Checkelsky, L. A. Wray, Y. Xia, S.-Y. Xu, D. Qian, M. Z. Hasan, N. P. Ong, A. Yazdani, R. J. Cava
Phys. Rev. B **81**, 195203 (2010)

6. Transport properties of vortex matter governed by the edge inductance in superconducting $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$ crystals

[H. Beidenkopf](#), Y. Myasoedov, E. Zeldov, E. H. Brandt, G. P. Mikitik, T. Tamegai, T. Sasagawa, and C. J. van der Beek
Phys. Rev. B **80**, 224526 (2009)

7. Multiple Changes of Order of the Vortex Melting Transition in BSCCO with Dilute Columnar Defects

Tal Verdene, [Haim Beidenkopf](#), Yuri Myasoedov, Hadas Shtrikman, Michael Rappaport, Eli Zeldov and Tsuyoshi Tamegai
Phys. Rev. Lett. **101**, 157003 (2008)
Also in: Virtual Journal of Applications of Superconductivity, October 2008

8. Interplay of anisotropy and disorder in the doping-dependent melting and glass transitions of vortices in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_{8+x}$

[H. Beidenkopf](#), T. Verdene, Y. Myasoedov, H. Shtrikman, E. Zeldov, B. Rosenstein, D. Li, T. Tamegai
Phys. Rev. Lett. **98**, 167004 (2007)

9. Equilibrium first-order melting and second-order glass transitions of the vortex matter in $\text{Bi}_2\text{Sr}_2\text{CaCu}_2\text{O}_8$

[H. Beidenkopf](#), N. Avraham, Y. Myasoedov, H. Shtrikman, E. Zeldov, B. Rosenstein, E.H. Brandt, T. Tamegai
Phys. Rev. Lett. **95**, 257004 (2005)