

C. C. Homes

Education:

McMaster University, Canada	B.Sc. (Hons)	1983	Physics (Summa cum laude)
University of British Columbia, Canada	M.Sc.	1985	Physics
University of British Columbia, Canada	Ph.D.	1990	Physics

Research and Professional Experience:

Physicist	Brookhaven National Lab	2000–present (with tenure 2003)
Associate Physicist	Brookhaven National Lab	1998–2000
Assistant Physicist	Brookhaven National Lab	1996–1998
NSERC Postdoctoral Fellow	Simon Fraser University	1992–1996
Postdoctoral Fellow	McMaster University	1990–1992

Selected Awards and Professional Activities:

American Physical Society Fellow	2008
Brookhaven Science and Technology Award	2007
Visiting Professor, LPEM, ESPCI, University of Paris VI	2007
Brookhaven Council	2006–2009 (Chair, 2009)
Local contact, NSLS beamline U10A	1998–2005
Human Performance Advocate	2008–present
Editorial Board, ISRN Condensed Matter Physics	2010–present
Local Organizer, Telluride Science Workshop	2011
Organizing Committee, Low Energy Electrodynamics in Solids	2012

Selected Publications:

1. *Optical conductivity of a nodal metal*, C. C. Homes, J. J. Tu, J. Li, G. D. Gu, A. Akrap, *Sci. Rep.* **3**, 3446 (2013).
2. *Three-dimensional Dirac fermions in quasicrystals as seen via optical conductivity*, T. Timusk, J. P. Carbotte, C. C. Homes, D. N. Basov, and S. G. Sharapov, *Phys. Rev. B* **87**, 235121 (2013); Editors suggestion.
3. A. Akrap, M. Tran, A. Ubaldini, J. Teyssier, E. Giannini, D. van der Marel, P. Lerch, and C. C. Homes, *Optical properties of Bi₂Te₂Se at ambient and high pressures*, *Phys. Rev. B* **86**, 235207 (Dec 2012).
4. *$n_s - T_c$ Correlations in Granular Superconductors*, Y. Imry, M. Strongin, and C. C. Homes, *Phys. Rev. Lett.* **109**, 067003 (2012).
5. *Determination of the optical properties of $La_{2-x}Ba_xCuO_4$ for several dopings, including the anomalous $x = 1/8$ phase*, C. C. Homes, M. Hücker, Q. Li, Z. J. Xu, J. S. Wen, G. D. Gu, and J. M. Tranquada, *Phys. Rev. B* **85**, 134510 (2012).
6. *Optical conductivity of superconducting $K_{0.8}Fe_{2-y}Se_2$ single crystals: Evidence for a Josephson-coupled phase*, C. C. Homes, Z. J. Xu, J. S. Wen, and G. D. Gu, *Phys. Rev. B: Rapid Commun.* **85**, 180510(R) (2012).

7. *Electronic correlations and unusual superconducting response in the optical properties of the iron chalcogenide $FeTe_{0.55}Se_{0.45}$* , C. C. Homes, A. Akrap, J. S. Wen, Z. J. Xu, Z. W. Lin, Q. Li, and G. D. Gu, Phys. Rev. B: Rapid Commun. **81**, 180508(R) (2010).
8. *Optical properties of the iron arsenic superconductor $BaFe_{1.85}Co_{0.15}As_2$* , J. J. Tu, J. Li, W. Liu, A. Punnoose, Y. Gong, Y. H. Ren, L. J. Li, G. H. Cao, Z. A. Xu, and C. C. Homes, Phys. Rev. B **82**, 174509 (Nov 2010).

Collaborators from other Institutions:

G. Blumberg (Rutgers); S. V. Dordevic (U. Arkon); S. Bud'ko, P. Canfield (AMES); H. Ding, X. C. Wang, C. Q. Jin, B. Xu, B. Shen, H. Xiao, H. H. Wen, X. G. Qiu (Beijing National Laboratory); J. J. Tu (CUNY/CCNY); M. Kidszun, S. Haindl (IFW–Dresden); U. Nagel, T. Room (Estonia); A. Akrap, A. B. Kuzmenko, D. van der Marel (Geneva); R. P. S. M. Lobo (LPED, ESPCI - ParisTech); J. P. Carbotte, J. S. Hall, A. W. Kinross, G. M. Luke, S. K. Purdy, T. Munsie, T. Timusk, T. J. Williams (McMaster); P. Lerch (PSI); T. Vogt (South Carolina); M. Aronson, P. Kalifah (SUNY Stony Brook); D. N. Basov (UCSD); S. R. Julian, W. Wu (U. Toronto); S. G. Sharapov (Ukraine); Y. Imry (Weizmann).

Graduate and Postdoctoral Advisors:

Graduate advisor: J. E. Eldridge (University of British Columbia)

Postdoctoral advisors: T. Timusk (McMaster), B. P. Clayman (Simon Fraser University)

Thesis and Postdoctoral Advisees (last 5 years):

Graduate students: None.

Postdoctoral (4 total): Ana Akrap (University of Geneva), Yaomin Dai