

CHIN-SEN TING

Professor of Physics
Department of Physics
University of Houston
Houston, Texas 77204-5932

UH Science Center, 312
Phone: (713) 743-8275
E-mail: ting@uh.edu

Education

B.S. National Taiwan University (1961)
M. S. National Tsinghua University (Taiwan, 1964)
Ph.D. in Physics, University of California, San Diego (1970)

Employment

Postdoctoral Research Associates at NYU and Brown University (1970-76)
Assistant Professor and Associate Professor of Physics/University of Houston (1976-1985)
Professor of Physics /University of Houston (1985 to present)

Societies and Honors--Fellow, American Physical Society/Division of Condensed Matter Physics (1999)

Research Area-- Condensed matter theory including many-particle effect and transport theory in various solid state systems, superconductivity in copper oxide materials and iron pnictides, electronic properties in graphene, spin-orbit physics in various solid state systems, strongly correlated electron systems, magnetism, metal-insulator transition, electronic and optical properties in semiconductors.

Current Research Support -Grants: 340K (2018 to 2019; no overhead cost) from the Robert A. Welch Foundation. Currently there are 2 research associates with Ph.D. in physics and 2 graduate students in my group.

Publications (230 publications in Physical Review B including 30 in PRB-Rapid Comm, and 36 in Physical Review Letters)

Five Most Important Publications:

1. *X. Lei and C. S. Ting, "Green-Function Approach to Nonlinear Transport for Electron - Impurity - Phonon System in a Strong Electric Field," *Phys. Rev. B* 32, 1112, (1985).
2. *Z. D. Wang and C. S. Ting, "Anomalous Hall Effect Associated with Pinning in High T_c Superconductors," *Phys. Rev. Lett.*, 67,3618 (1991).
3. *Y. Ren, J. H. Xu and C. S. Ting "Ginzburg-Landau Equations and Vortex Structures for d-Wave Superconductors," *Phys. Rev. Lett.*, 74, 3680 (1995).
4. *L. Sheng, D. N. Sheng and C. S. Ting "Theory of Colossal Magnetoresistance in $La_{1-x}Ba_xMnO_3$ Compound," *Phys. Rev. Lett.* 79, 1710 (1997).
5. *L. Sheng, D. N. Sheng and C. S. Ting, "Spin-Hall Effect in Two-dimensional Electron Systems with Rashba Spin-Orbit Coupling and Disorder," *Phys. Rev. Lett.* 94, 016602 (2005).

Five Recent Publications from Ting's group:

1. *J. Li, Jin An, C. S. Ting, "Interaction-induced Localization of Mobile Impurities in uUltracold Systems," *Scientific Reports* 3, 3147 (2013)
2. *L. H. Pan, J. Li, Y. Y. Tai, M. J. Graf, J. X. Zhu, and C. S. Ting, "Evolution of Quasiparticle States with and Without a Zn-impurity in Doped 122 Iron-pnictides," *Phys. Rev. B* 90, 13450 (2014)
3. *Y. Y. Tai, C. J. Wang, M. J. Graf, J.-X. Zhu, and C. S. Ting, "Emergent Topological Mirror Insulator in t_{2g} -orbital Systems," *Phys. Rev. B* 91, 041111(Rapid Comm.) (2015)
4. *Hongyan Lu, Lei Hao, Rui Wang and C. S. Ting "Ferromagnetism and Superconductivity with Possible p+ip Pairing Symmetry in Partially Hydrogenated Graphene," *Phys. Rev. B* 93, 241410 (Rapid Comm.) (2016).
5. *Lei Hao and C. S. Ting, "Nematic Superconductivity in $Cu_xBi_2Se_3$: The Surface Andreev Bound States," *Phys. Rev. B* 96, 144502 (2017).