

Curriculum Vitae

Kun Yang

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Education

- Ph.D. in Physics, Indiana University, August 1994.
Thesis Title: Quantum Hall Physics in Low-Dimensional Strongly Correlated Systems.
Thesis Advisor: Professor Steven M. Girvin.
- M.S. in Physics, Indiana University, September 1991.
- B.S. in Physics, Fudan University, Shanghai, China, July 1989.

Research Interests

- Condensed Matter Theory; Strongly Correlated Many-Body Systems.
- Statistical Physics; Phase Transitions and Critical Phenomena.

Employment History

- Associate Professor, Physics Dept., Florida State University, August 2004 to present.
- Assistant Professor, Physics Dept., Florida State University, August 1999 to July 2004.
- Sherman Fairchild Senior Research Fellow, Caltech, August 1997 to August 1999.
- Postdoctoral Research Associate, Princeton University, September 1994 to July 1997.
- Research Assistant, Indiana University, May 1991 to August 1994.

Other Professional Experiences

- Visiting Member, Max Planck Institute for Physics of Complex Systems, Dresden, Germany, 7/10/03 – 7/25/03.
- Visiting Member, Institute for Theoretical Physics, University of California at Santa Barbara, 11/1/1998 - 12/18/98; 5/3/04 - 5/28/04.

- Visiting Member, Aspen Center for Physics, Summers of 1997, 2002, and 2003.
- Visiting Professor, Zhejiang Insitute of Modern Physics, Hangzhou, China, May 3 – June 24, 2002; June. 1 – July 6, 2004.

Honors and Awards

- Outstanding Young Researcher Award, Overseas Chinese Physics Association, 2003.
- Research Innovation Award, Research Corporation, 2000.
- Alfred P. Sloan Research Fellowship, 1999.
- Sherman Fairchild Senior Research Fellowship, California Institute of Technology, 1997.
- Outstanding Graduate Student in Research Award, Physics Dept., Indiana Univ., 1994.

Research Grants (solo PI unless noted otherwise)

- *Microwave Spectroscopy of 2D Electron Systems in Tilted Magnetic Field: Studies of Charge Density Wave Phases*, National High Magnetic Field in-House Research Grant, 10/1/03-9/30/05, \$204,775. Co-PI with Lloyd Engel and Alan Dorsey.
- *Role of Disorder in Strongly Correlated Low-dimensional Systems*, National Science Foundation Grant DMR-0225698, 12/1/02 to 11/30/05, \$240,000.
- *Dynamics, Thermodynamics and Spin Transport in Random Quantum Spin Chains*, National Science Foundation Grant NSF DMR-9971541, 6/1/99 to 11/30/02, \$150,000.
- *Effects of Disorder and Fluctuations in Fulde-Ferrell-Larkin-Ovchinnikov Superconductors*, Research Innovation Award, Research Corporation, 5/15/01 to 5/15/03, \$35,000.
- Alfred P. Sloan Research Fellowship, 9/15/99 to 9/15/03, \$35,000.

Invited Conference Presentations

- *Theory of Ferromagnetic Transition in One-Dimensional Itinerant Electron Systems*, invited talk given at the 4th Joint Meeting of Chinese Physicists World-Wide, Shanghai, China, June 30, 2004.
- *Theory of Ferromagnetic Transition in One-Dimensional Itinerant Electron Systems*, invited talk given at the 4th annual workshop of the International Center for Quantum Structures of Academia Sinica, Beijing, China, June 15, 2004.

- *Quantum Hall Edge Reconstruction as a Quantum Phase Transition*, invited talk given at the International Seminar and Workshop on Quantum Phase Transitions, Max Planck Institute for Physics of Complex Systems, Dresden, Germany, July 17, 2003.
- *A Toy Model for the Pseudogap Phase in Underdoped Cuprates*, invited talk given at the First Beijing Forum on the Mechanism of High- T_c Superconductivity, June 2002, Beijing.
- *Reconstruction of Fractional Quantum Hall Edges*, invited talk given at the 2002 American Physical Society Annual March Meeting, Indianapolis, Indiana.
- *Zeeman Effect of a Magnetic Field and Fulde-Ferrell-Larkin-Ovchinnikov State in Unconventional Superconductors*, invited talk given at the Los Alamos Workshop on Excitations in Unconventionally Ordered Metals, Santa Fe, New Mexico, October 2001.
- *Recent Progress in Low-dimensional Disordered Quantum Magnets*, invited talk given at the Third Joint Meeting of Chinese Physicists World-Wide, Aug. 2000, Hong Kong.
- *Zeeman and Orbital Effects of a Magnetic Field Parallel to the Cu-O Plane in Cuprate Superconductors*, invited talk given at the Workshop on Strongly Correlated Electronic Systems, June 6, 1998, Center of Theoretical Sciences, Hsinchu, Taiwan.
- *Random Antiferromagnetic Quantum Spin Chains*, invited talk given at the Workshop on Quantum Phase Transitions in Disordered Systems, July 24, 1997, Aspen, CO.
- *Fate of Extended States and Localization Transition at Weak Fields*, invited talk given at the 1997 American Physical Society Annual March Meeting, Kansas City, MO.
- *Quantum Phase Transitions and Iso-Spin Textures in Double Layer QHE Systems*, invited talk given at the 1994 American Physical Society Annual March Meeting, Pittsburgh, PA.

Invited Seminars and Colloquia

- *Theory of Ferromagnetic Transition in One-Dimensional Itinerant Electron Systems*, Condensed Matter Physics Seminar given at Zhejiang University, Hangzhou, China, June 3, 2004.
- *Magnetism, Superfluidity, and Chiral Edge States in Quantum Hall Systems – Why are People Still Working on the Quantum Hall Effect after Two Nobel Prizes?* Colloquia at Physics Department, University of Cincinnati, Oct. 3, 2002; Florida State University, Apr. 3, 2003; University of South Florida, Mar. 19, 2004; Zhejiang University, Hangzhou, China, June 17, 2004.
- *Reconstruction of Fractional Quantum Hall Edges*, Condensed Matter Physics Seminars at Princeton University, Sept. 24, 2001; Bell Labs, Sept. 26, 2001; University of Georgia, Feb. 13, 2002; Zhejiang Institute for Modern Physics, Hangzhou, China, June 7, 2002; University of Toronto, Nov. 4, 2002; University of Bochum, Germany, Jul. 18, 2003; University of Texas, Austin, Nov. 6, 2003.

- *A Toy Model for the Pseudogap Phase in Underdoped Cuprates*, Condensed Matter Physics Seminars at University of Texas at Austin, Feb. 16, 2001; University of Houston, Feb. 15, 2001; University of Florida, Apr. 16, 2001; Yale University, Sept. 27, 2001; Zhejiang Institute for Modern Physics, Hangzhou, China, May 10, 2002; Ohio State University, Sep. 30, 2002; University of Kentucky, Oct. 1, 2002; Leibnitz Institute for Solid State and Materials Research, July 22, 2003.
- *Zeeman and Orbital Effects of an in-Plane Magnetic Field in Cuprate Superconductors*, Condensed Matter Physics Seminars at Caltech, April 13, 1998; UC San Diego, May 6, 1998; Zhejiang Univ., Hangzhou, China, May 6, 1999; Fudan Univ., Shanghai, China, May 11, 1999; USC, Nov. 19, 1999; Colloquia at Physics Dept., UNLV, Sept. 11, 1998; Florida State Univ., Jan. 27, 2000.
- *Response of a d-wave Superconductor to a Zeeman Magnetic Field*, Condensed Matter Physics Seminars at Indiana University, Nov. 18, 1997, and Boston University, Jan. 16, 1998.
- *Random Antiferromagnetic Quantum Spin Chains*, Condensed Matter Physics Seminars at Ohio State University, Nov. 17, 1997; Stanford University, Jan. 8, 1998; University of Colorado, Feb. 12, 1998; Iowa State University, Feb. 17, 1998; Florida State University, Mar. 6, 1998; UC Santa Cruz, April 30, 1998; Zhejiang Univ., Hangzhou, China, May 5th, 1999.
- *Percolation, Delocalization, and the Integer Quantum Hall Effect*, Colloquia at School of Physics, Georgia Institute of Technology, Feb. 24, 1997; Department of Physics, University of Colorado, Feb. 11, 1998; Department of Physics, The Ohio State University, Apr. 29, 1998.
- *Effects of Randomness in Gapped Antiferromagnetic Quantum Spin Chains*, Condensed Matter Physics Seminars at UCLA, Penn. State, SUNY at Stony Brook, Boston University, and University of Cincinnati, winter 1996-1997.
- *Levitation of Extended States and Localization Transition in Two-Dimensions*, Condensed Matter Physics Seminar at University of Maryland, Oct. 17, 1996.
- *Current Carrying States on a Lattice*, Condensed Matter Physics Seminars at Indiana University and University of Kentucky, April, 1996.
- *Random Bonds and Topological Stability in Gapped Antiferromagnetic Quantum Spin Chains*, Condensed Matter Theory Seminar, AT&T Bell Labs, Nov. 29, 1995.
- *Quantum Ferromagnetism and Phase Transitions in Double-Layer Quantum Hall Systems*, Condensed Matter Physics Seminars at AT&T Bell Labs, Princeton University, Yale University and Rutgers University, February, 1994.