
MICHELLE D. CHABOT

DEPARTMENT OF PHYSICS
UNIVERSITY OF SOUTH FLORIDA
TAMPA, FLORIDA 33620

EDUCATION

- 1996 - 2001 **UNIVERSITY OF TEXAS AT AUSTIN**
 Aug. 2001 **PH. D. IN EXPERIMENTAL CONDENSED MATTER PHYSICS**
 Dissertation: "Force Detection of Nuclear Magnetic Resonance Using
 Double-Torsional Micro-Oscillators"

 Dec. 1998 **M. A. IN EXPERIMENTAL CONDENSED MATTER PHYSICS**
 Thesis: "Design and Construction of a Semi-Adiabatic Calorimetry
 Apparatus with Applications to the $\text{Ca}_{2+x}\text{Y}_{2-x}\text{Cu}_5\text{O}_{10}$ System"

1992-1996 **RICE UNIVERSITY**
 May 1996 **B. A. IN PHYSICS AND MATHEMATICS**
 Thesis: "Monte Carlo Simulations of the KTeV Level 2 Trigger for
 Optimizing the Detection of Rare Kaon Decays"

EXPERIENCE

- 2007 – Present **FACULTY INSTRUCTOR OF PHYSICS:** University of South Florida, Tampa, FL

2003 – 2007 **ASSISTANT PROFESSOR OF PHYSICS:** University of San Diego, CA

2001 – 2003 **NATIONAL RESEARCH COUNCIL POST-DOCTORAL FELLOW:** National
 Institute of Standards and Technology, Boulder, CO
 Project Leader: John Moreland; Micro-cantilever torque magnetometry.

1997 – 2001 **GRADUATE RESEARCH ASSISTANT:** Department of Physics, UT Austin
 Advisor: John T. Markert; Force Detection of NMR, low-T calorimetry.

1996 - 2000 **TEACHING ASSISTANT:** Department of Physics, UT Austin

1999 - 2000 **RESEARCHER:** Xidex Corporation, Austin, TX

1993 - 1996 **TEACHING ASSISTANT:** School of Natural Sciences, Rice University

1994 - 1996 **RESEARCH ASSISTANT:** School of Natural Sciences, Rice University

AWARDS AND MEMBERSHIPS

- Research Corporation Cottrell College Grant Recipient • Brian Andreen Cottrell College Science Award • National Research Council Post-Doctoral Fellowship • Best Student Paper Award: *Proceedings of SPIE 2001: MEMS Components and Applications to Industry* • Best Poster by an Undergraduate: *1996 Rice University REU Symposium* • Rice University Will Rice Fellow • Member: American Physical Society

PUBLICATIONS:

ARTICLES:

- L. Yuan, L. Gao, R. Sabirianov, S. H. Liou, M. D. Chabot, D. H. Min, J. Moreland, and B. S. Han, "Microcantilever Torque Magnetometry Study of Patterned Magnetic Films," IEEE Transactions on Magnetics, **42**, 3234 (2006).
- M. D. Chabot, J. M. Moreland, L. Gao, S.-H. Liou, and C. W. Miller, "Novel Fabrication of Micromechanical Oscillators with Nanoscale Sensitivity at Room Temperature," Journal of Microelectromechanical Systems **14**, 1118 (2005).
- L. Gao, D. Q. Feng, L. Yuan, T. Yokota, R. Sabirianov, and S. H. Liou, M. D. Chabot, D. Porpora, and J. Moreland, "A Study of Magnetic Interactions of $Ni_{80}Fe_{20}$ Arrays Using Ultra-sensitive Microcantilever Torque Magnetometry," Journal of Applied Physics **95**, 7010 (2004).
- Jae-Hyuk Choi, Utkur M. Mirsaidov, Casey W. Miller, Yong J. Lee, Samaresh Guchhait, Michelle D. Chabot, Wei Lu, and John T. Markert, "Oscillator Microfabrication, Micromagnets, and Magnetic Resonance Force Microscopy," Proceedings of SPIE; Smart Structures and Materials 2004: Smart Electronics, MEMS, BioMEMS, and Nanotechnology, **5389**, 399 (2004).
- M. D. Chabot and J. Moreland, "Micrometer-Scale Magnetometry of Thin Films Using Ultra-sensitive Microcantilevers," Journal of Applied Physics, **93**, 7897 (2003).
- M. D. Chabot and J. T. Markert, "Evidence of Successive Doping-Induced Dimensionality Transitions in the Spin-Chain Compound $Ca_{2+x}Y_{2-x}Cu_5O_{10}$," Physical Review Letters, **86**, pp. 163-166 (2001).
- M. D. Chabot, T. C. Messina, V. Mancevski, C. W. Miller, and J. T. Markert, "Single-Crystal Silicon Triple Torsional Micro-Oscillators for Use in Magnetic Resonance Force Microscopy," Proceedings of SPIE: MEMS Components and Applications to Industry, **4559**, pp. 24-32 (2001).
- M. D. Chabot and J. T. Markert, "Microfabrication of Single-Crystal Silicon Multiple Torsional Oscillators," Proceedings of SPIE: Materials in Device Characterization in Micromachining II, **3875**, pp. 104-112 (1999).

PRESENTATIONS/ABSTRACTS:

- M. D. Chabot, *American Physical Society March Meeting*, Denver, CO (2007).
- M. D. Chabot, J. M. Moreland, L. Gao, S.-H. Liou, C. W. Miller, *American Physical Society March Meeting*, Los Angeles, CA (2005).
- L. Gao, M. D. Chabot, D. H. Min, *American Physical Society March Meeting*, Los Angeles, CA (2005).

- L. Gao, D. Q. Feng, L. Yuan, T. Yokota, S. H. Liou, M. D. Chabot, and J. Moreland, *American Physical Society March Meeting*, Montreal, Canada, (2004).
- U. Mirsaidov, C. W. Miller, Y. Lee, M. D. Chabot, J. T. Markert, *American Physical Society March Meeting*, Montreal, Canada, (2004).
- L. Gao, D. Q. Feng, L. Yuan, T. Yokota, R. Sabirianov, S. H. Liou, M. D. Chabot, D. Porpora, and J. Moreland, *9th Joint MMM/Intermag*, Anaheim, CA, (2004).
- M. D. Chabot, J. M. Moreland, *American Physical Society March Meeting*, Indianapolis, IN, (2003).
- M. D. Chabot and J. Moreland, *47th Annual Conference on Magnetism and Magnetic Materials*, Tampa, FL (2002).
- D. H. Min, M. D. Chabot, S. E. Russek, A. McCallum, and J. Moreland, *47th Annual Conference on Magnetism and Magnetic Materials*, Tampa, FL (2002).
- M. D. Chabot, D. H. Min, and J. Moreland, *National Storage Industry Consortium Annual Meeting*, Monterey, CA (2002).
- C. W. Miller, M. D. Chabot, T. C. Messina, Y. J. Lee, and J. T. Markert, *American Physical Society March Meeting*, Indianapolis, IN (2002).
- M. D. Chabot, T. Messina, V. Mancevski, C. Miller, and J. Markert, *SPIE Symposium on Micromachining and Microfabrication*, Santa Clara, CA (2001).
- M. D. Chabot, G. Drandova, and J. T. Markert, *American Physical Society March Meeting*, Seattle, WA (2001).
- M. D. Chabot and J. T. Markert, *American Physical Society March Meeting*, Minneapolis, MN (2000).
- M. D. Chabot and J. T. Markert, *Conference on Materials and Mechanisms of Superconductivity and High-Temperature Superconductors*, Houston, TX (2000).
- M. D. Chabot and J. T. Markert, *SPIE Symposium on Micromachining and Microfabrication*, Santa Clara, CA (1999).
- M. D. Chabot and J. T. Markert, *American Physical Society March Meeting*, Atlanta, GA (1999).