Stanford



Kathryn Moler

Special Advisor to the President, Marvin Chodorow Professor and Professor of Applied Physics, of Physics and of Energy Science Engineering

Curriculum Vitae available Online

CONTACT INFORMATION

- **Administrative Contact**

  Angel Smith - Program Manager and Senior Executive Assistant

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Bio

ACADEMIC APPOINTMENTS

- Professor, Applied Physics
- Professor, Physics
- Professor, Energy Science & Engineering
- Member, Bio-X
- Principal Investigator, Stanford Institute for Materials and Energy Sciences
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Transition Dean, Stanford Doerr School of Sustainability, (2022-2022)
- Vice Provost and Dean of Research, VPDoR, (2018-2023)
- Senior Associate Dean for the Natural Sciences, Humanities and Sciences Deans Office, (2016-2018)
- Chair of the Faculty Senate, 47th Senate of the Academic Council, (2015-2016)
- Director, Stanford Nano Shared Facilities, (2008-2016)
- Co-Founder and Director, Center for Probing the Nanoscale, an NSF Nanoscale Science and Engineering Center, (2004-2011)

HONORS AND AWARDS

- Sapp Family University Fellow in Undergraduate Education, Stanford University (2014-)
- Richtmyer Award for "Outstanding Leadership in Physics Education", American Association of Physics Teachers (2011)
- APS Fellow, American Physical Society (2008-)
- SIAM Stanford Student Chapter Professorial Award, Society of Industrial and Applied Mathematicians (2004)
- Packard Fellow, Packard Foundation (2001-2006)
- Presidential Early Career Award for Scientists and Engineers, United States government (2000)
- CAREER Award, National Science Foundation (1999-2003)
- Alfred P. Sloan Research Fellow, Alfred P. Sloan Foundation (1999-2001)

- William L. McMillan Award, UIUC (1999)
- Frederick E. Terman Fellow, Stanford University (1998-2001)
- R.H. Dicke Postdoctoral Fellow, Princeton University (1995-1998)

Teaching

COURSES

2026-27

- Electricity and Magnetism Using Special Relativity and Vector Calculus: PHYSICS 81 (Spr)
- Sustainable Energy for Future Presidents: SUSTAIN 101A (Win)

2024-25

- Condensed Matter Seminar: APPPHYS 470 (Aut, Win, Spr)
- Powering the Future: How Physics Drives Green Energy: APPPHYS 100N (Spr)
- Sustainable Energy for Future Presidents: SUSTAIN 101A (Win)

2023-24

- Sustainable Energy for Future Presidents: SUSTAIN 101A (Win)

STANFORD ADVISEES

Doctoral Dissertation Co-Advisor (AC)

Alexander Kiral

Publications

PUBLICATIONS

- **Vortex dynamics induced by scanning SQUID susceptometry** *PHYSICAL REVIEW B*
  Bishop-Van Horn, L., Mueller, E., Moler, K. A.
  2023; 107 (22)
- **Superconducting vortices carrying a temperature-dependent fraction of the flux quantum.** *Science (New York, N.Y.)*
  Iguchi, Y., Shi, R. A., Kihou, K., Lee, C., Barkman, M., Benfenati, A. L., Grinenko, V., Babaev, E., Moler, K. A.
  2023: eabp9979
- **Microscopic Imaging Homogeneous and Single Phase Superfluid Density in UTe_{2}.** *Physical review letters*
  Iguchi, Y., Man, H., Thomas, S. M., Ronning, F., Rosa, P. F., Moler, K. A.
  2023; 130 (19): 196003
- **SuperScreen: An open-source package for simulating the magnetic response of two-dimensional superconducting devices** *COMPUTER PHYSICS COMMUNICATIONS*
  Bishop-Van Horn, L., Moler, K. A.
  2022; 280
- **Local imaging of diamagnetism in proximity-coupled niobium nanoisland arrays on gold thin films** *PHYSICAL REVIEW B*
  Horn, L., Zhang, I. P., Waite, E. N., Mondragon-Shem, I., Jensen, S., Oh, J., Lippman, T., Durkin, M., Hughes, T. L., Mason, N., Moler, K. A., Sochnikov, I.
  2022; 106 (5)
- **Local observation of linear-T superfluid density and anomalous vortex dynamics in URu2Si2** *PHYSICAL REVIEW B*
  Iguchi, Y., Zhang, I. P., Bauer, E. D., Ronning, F., Kirtley, J. R., Moler, K. A.
  2021; 103 (22)
- **Moving academic research forward during COVID-19** *SCIENCE*

Wigginton, N. S., Cunningham, R. M., Katz, R. H., Lidstrom, M. E., Moler, K. A., Wirtz, D., Zuber, M. T.
2020; 368 (6496): 1190-1192

- **Influence of Resonances on the Noise Performance of SQUID Susceptometers.** *Sensors (Basel, Switzerland)*
  Davis, S. I., Kirtley, J. R., Moler, K. A.
  2019; 20 (1)
- **Semiconductor-Ferromagnetic Insulator-Superconductor Nanowires: Stray Field and Exchange Field.** *Nano letters*
  Liu, Y., Vaitiekenas, S., Marti-Sanchez, S., Koch, C., Hart, S., Cui, Z., Kanne, T., Khan, S. A., Tanta, R., Upadhyay, S., Cachaza, M. E., Marcus, C. M., Arbiol, et al
  2019
- **Exploring possible ferromagnetism of the LaAlO3/SrTiO3 interface** *PHYSICAL REVIEW MATERIALS*
  Wittlich, P., Boschker, H., Asaba, T., Li, L., Noad, H. L., Watson, C. A., Moler, K. A., Daraselia, D., Japaridze, D., Shengelaya, A., Wang, J., Xia, J., Mannhart, et al
  2019; 3 (10)
- **Current-phase relations of InAs nanowire Josephson junctions: From interacting to multimode regimes** *PHYSICAL REVIEW B*
  Hart, S., Cui, Z., Menard, G., Deng, M., Antipov, A. E., Lutchyn, R. M., Krogstrup, P., Marcus, C. M., Moler, K. A.
  2019; 100 (6)
- **Imaging anisotropic vortex dynamics in FeSe** *PHYSICAL REVIEW B*
  Zhang, I. P., Palmstrom, J. C., Noad, H., Bishop-Van Horn, L., Iguchi, Y., Cui, Z., Mueller, E., Kirtley, J. R., Fisher, I. R., Moler, K. A.
  2019; 100 (2)
- **Modulation of Superconducting Transition Temperature in LaAlO3/SrTiO3 by SrTiO3 Structural Domains** *JOURNAL OF SUPERCONDUCTIVITY AND NOVEL MAGNETISM*
  Noad, H., Wittlich, P., Mannhart, J., Moler, K. A.
  2019; 32 (4): 821–25
- **Cryogen-free variable temperature scanning SQUID microscope.** *The Review of scientific instruments*
  Bishop-Van Horn, L. n., Cui, Z. n., Kirtley, J. R., Moler, K. A.
  2019; 90 (6): 063705
- **Micron-scale measurements of low anisotropic strain response of local T-c in Sr2RuO4** *PHYSICAL REVIEW B*
  Watson, C. A., Gibbs, A. S., Mackenzie, A. P., Hicks, C. W., Moler, K. A.
  2018; 98 (9)
- **Observation of signatures of subresolution defects in two-dimensional superconductors with a scanning SQUID** *PHYSICAL REVIEW B*
  Noad, H., Watson, C. A., Inoue, H., Kim, M., Sato, H. K., Bell, C., Hwang, H. Y., Kirtley, J. R., Moler, K. A.
  2018; 98 (6)
- **Spatially modulated susceptibility in thin film La2-xBaxCuO4** *PHYSICAL REVIEW B*
  Davis, S. I., Ullah, R. R., Adamo, C., Watson, C. A., Kirtley, J. R., Beasley, M. R., Kivelson, S. A., Moler, K. A.
  2018; 98 (1)
- **A micro-SQUID with dispersive readout for magnetic scanning microscopy** *APPLIED PHYSICS LETTERS*
  Foroughi, F., Mol, J., Mueller, T., Kirtley, J. R., Moler, K. A., Bluhm, H.
  2018; 112 (25)
- **Spatially modulated magnetic structure of EuS due to the tetragonal domain structure of SrTiO3** *PHYSICAL REVIEW MATERIALS*
  Rosenberg, A. J., Katmis, F., Kirtley, J. R., Gedik, N., Moodera, J. S., Moler, K. A.
  2017; 1 (7)
- **Current-phase relations of few-mode InAs nanowire Josephson junctions** *NATURE PHYSICS*
  Spanton, E. M., Deng, M., Vaitiekenas, S., Krogstrup, P., Nygard, J., Marcus, C. M., Moler, K. A.
  2017; 13 (12): 1177-+
- **Imaging quantum materials** *NATURE MATERIALS*
  Moler, K.
  2017; 16 (11): 1049–52

- **Scanning SQUID sampler with 40-ps time resolution** *REVIEW OF SCIENTIFIC INSTRUMENTS*
  Cui, Z., Kirtley, J. R., Wang, Y., Kratz, P. A., Rosenberg, A. J., Watson, C. A., Gibson, G. W., Ketchen, M. B., Moler, K. A.
  2017; 88 (8): 083703

- **Determining the vibrations between sensor and sample in SQUID microscopy** *APPLIED PHYSICS LETTERS*
  Schiessl, D., Kirtley, J. R., Paulius, L., Rosenberg, A. J., Palmstrom, J. C., Ullah, R. R., Holland, C. M., Fung, Y. K., Ketchen, M. B., Gibson, G. W., Moler, K. A.
  2016; 109 (23)

- **The response of small SQUID pickup loops to magnetic fields** *SUPERCONDUCTOR SCIENCE & TECHNOLOGY*
  Kirtley, J. R., Paulius, L., Rosenberg, A. J., Palmstrom, J. C., Schiessl, D., Jermain, C. L., Gibbons, J., Holland, C. M., Fung, Y., Huber, M. E., Ketchen, M. B., Ralph, D. C., Gibson, et al
  2016; 29 (12)

- **Variation in superconducting transition temperature due to tetragonal domains in two-dimensionally doped SrTiO3** *PHYSICAL REVIEW B*
  Noad, H., Spanton, E. M., Nowack, K. C., Inoue, H., Kim, M., Merz, T. A., Bell, C., Hikita, Y., Xu, R., Liu, W., Vailionis, A., Hwang, H. Y., Moler, et al
  2016; 94 (17)

- **Ultrathin two-dimensional superconductivity with strong spin-orbit coupling** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Nam, H., Chen, H., Liu, T., Kim, J., Zhang, C., Yong, J., Lemberger, T. R., Kratz, P. A., Kirtley, J. R., Moler, K., Adams, P. W., MacDonald, A. H., Shih, et al
  2016; 113 (38): 10513-10517

- **Scanning SQUID susceptometers with sub-micron spatial resolution** *REVIEW OF SCIENTIFIC INSTRUMENTS*
  Kirtley, J. R., Paulius, L., Rosenberg, A. J., Palmstrom, J. C., Holland, C. M., Spanton, E. M., Schiessl, D., Jermain, C. L., Gibbons, J., Fung, Y. K., Huber, M. E., Ralph, D. C., Ketchen, et al
  2016; 87 (9)

- **Edge transport in the trivial phase of InAs/GaSb** *NEW JOURNAL OF PHYSICS*
  Nichele, F., Suominen, H. J., Kjaergaard, M., Marcus, C. M., Sajadi, E., Folk, J. A., Qu, F., Beukman, A. J., de Vries, F. K., van Veen, J., Nadj-Perge, S., Kouwenhoven, L. P., Binh-Minh Nguyen, et al
  2016; 18

- **Magnetic coupling at rare earth ferromagnet/transition metal ferromagnet interfaces: A comprehensive study of Gd/Ni** *SCIENTIFIC REPORTS*
  Higgs, T. D., Bonetti, S., Ohldag, H., Banerjee, N., Wang, X. L., Rosenberg, A. J., Cai, Z., Zhao, J. H., Moler, K. A., Robinson, J. W.
  2016; 6

- **Depth resolved domain mapping in tetragonal SrTiO3 by micro-Laue diffraction** *APPLIED PHYSICS LETTERS*
  Merz, T. A., Noad, H., Xu, R., Inoue, H., Liu, W., Hikita, Y., Vailionis, A., Moler, K. A., Hwang, H. Y.
  2016; 108 (18)

- **TOPOLOGICAL MATTER Observation of chiral currents at the magnetic domain boundary of a topological insulator** *SCIENCE*
  Wang, Y. H., Kirtley, J. R., Katmis, F., Jarillo-Herrero, P., Moodera, J. S., Moler, K. A.
  2015; 349 (6251): 948-952

- **Nonsinusoidal Current-Phase Relationship in Josephson Junctions from the 3D Topological Insulator HgTe.** *Physical review letters*
  Sochnikov, I., Maier, L., Watson, C. A., Kirtley, J. R., Gould, C., Tkachov, G., Hankiewicz, E. M., Brüne, C., Buhmann, H., Molenkamp, L. W., Moler, K. A.
  2015; 114 (6): 066801-?

- **Nonsinusoidal Current-Phase Relationship in Josephson Junctions from the 3D Topological Insulator HgTe** *PHYSICAL REVIEW LETTERS*
  Sochnikov, I., Maier, L., Watson, C. A., Kirtley, J. R., Gould, C., Tkachov, G., Hankiewicz, E. M., Bruene, C., Buhmann, H., Molenkamp, L. W., Moler, K. A.
  2015; 114 (6)

- **Images of Edge Current in InAs/GaSb Quantum Wells.** *Physical review letters*
  Spanton, E. M., Nowack, K. C., Du, L., Sullivan, G., Du, R., Moler, K. A.
  2014; 113 (2): 026804-?

- **Direct measurement of internal magnetic fields in natural sands using scanning SQUID microscopy.** *Journal of magnetic resonance*
  Walbrecker, J. O., Kalisky, B., Grombacher, D., Kirtley, J., Moler, K. A., Knight, R.
  2014; 242: 10-17

- **Locally enhanced conductivity due to the tetragonal domain structure in LaAlO3/SrTiO3 heterointerfaces.** *Nature materials*
  Kalisky, B., Spanton, E. M., Noad, H., Kirtley, J. R., Nowack, K. C., Bell, C., Sato, H. K., Hosoda, M., Xie, Y., Hikita, Y., Woltmann, C., Pfanzelt, G., Jany, et al
  2013; 12 (12): 1091-1095

- **Imaging currents in HgTe quantum wells in the quantum spin Hall regime.** *Nature materials*
  Nowack, K. C., Spanton, E. M., Baenninger, M., König, M., Kirtley, J. R., Kalisky, B., Ames, C., Leubner, P., Brüne, C., Buhmann, H., Molenkamp, L. W., Goldhaber-Gordon, D., Moler, et al
  2013; 12 (9): 787-791

- **Imaging currents in HgTe quantum wells in the quantum spin Hall regime.** *Nature materials*
  Nowack, K. C., Spanton, E. M., Baenninger, M., König, M., Kirtley, J. R., Kalisky, B., Ames, C., Leubner, P., Brüne, C., Buhmann, H., Molenkamp, L. W., Goldhaber-Gordon, D., Moler, et al
  2013; 12 (9): 787-791

- **Direct measurement of current-phase relations in superconductor/topological insulator/superconductor junctions.** *Nano letters*
  Sochnikov, I., Bestwick, A. J., Williams, J. R., Lippman, T. M., Fisher, I. R., Goldhaber-Gordon, D., Kirtley, J. R., Moler, K. A.
  2013; 13 (7): 3086-3092

- **Direct Measurement of Current-Phase Relations in Superconductor/Topological Insulator/Superconductor Junctions** *NANO LETTERS*
  Sochnikov, I., Bestwick, A. J., Williams, J. R., Lippman, T. M., Fisher, I. R., Godhaber-Gordon, D., Kirtley, J. R., Moler, K. A.
  2013; 13 (7): 3086-3092

- **Advanced sensors for scanning SQUID microscopy** *IEEE 14th International Superconductive Electronics Conference (ISEC)*
  Kirtley, J. R., Gibson, G. W., Fung, Y. K., KLOPFER, B., Nowack, K., Kratz, P. A., Mol, J., Arpes, J., Forooghi, F., Huber, M. E., Bluhm, H., Moler, K. A.
  IEEE.2013

- **Agreement between local and global measurements of the London penetration depth** *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*
  Lippman, T. M., Kalisky, B., Kim, H., Tanatar, M. A., Bud'ko, S. L., Canfield, P. C., Prozorov, R., Moler, K. A.
  2012; 483: 91-93

- **Gate-tuned superfluid density at the superconducting LaAlO3/SrTiO3 interface** *PHYSICAL REVIEW B*
  Bert, J. A., Nowack, K. C., Kalisky, B., Noad, H., Kirtley, J. R., Bell, C., Sato, H. K., Hosoda, M., Hikita, Y., Hwang, H. Y., Moler, K. A.
  2012; 86 (6)

- **Scanning Probe Manipulation of Magnetism at the LaAlO3/SrTiO3 Heterointerface** *NANO LETTERS*
  Kalisky, B., Bert, J. A., Bell, C., Xie, Y., Sato, H. K., Hosoda, M., Hikita, Y., Hwang, H. Y., Moler, K. A.
  2012; 12 (8): 4055-4059

- **Scanning SQUID susceptometry of a paramagnetic superconductor** *PHYSICAL REVIEW B*
  Kirtley, J. R., Kalisky, B., Bert, J. A., Bell, C., Kim, M., Hikita, Y., Hwang, H. Y., Ngai, J. H., Segal, Y., Walker, F. J., Ahn, C. H., Moler, K. A.
  2012; 85 (22)

- **Critical thickness for ferromagnetism in LaAlO3/SrTiO3 heterostructures** *NATURE COMMUNICATIONS*
  Kalisky, B., Bert, J. A., Klopfer, B. B., Bell, C., Sato, H. K., Hosoda, M., Hikita, Y., Hwang, H. Y., Moler, K. A.
  2012; 3

- **Calculation of the effect of random superfluid density on the temperature dependence of the penetration depth** *PHYSICAL REVIEW B*
  Lippman, T. M., Moler, K. A.
  2012; 85 (10)

- **Fluxoid fluctuations in mesoscopic superconducting rings** *PHYSICAL REVIEW B*
  Bert, J. A., Koshnick, N. C., Bluhm, H., Moler, K. A.
  2011; 84 (13)

- **Pattern-Free Growth of Carbon Nanotube Tips for Scanning Probe Microscopy** *NANOSCIENCE AND NANOTECHNOLOGY LETTERS*
  Yenilmez, E., Zhang, H., Zhang, L., Deng, Z., Moler, K. A.
  2011; 3 (5): 669-673
- **Direct imaging of the coexistence of ferromagnetism and superconductivity at the LaAlO3/SrTiO3 interface** *NATURE PHYSICS*
  Bert, J. A., Kalisky, B., Bell, C., Kim, M., Hikita, Y., Hwang, H. Y., Moler, K. A.
  2011; 7 (10): 767-771
- **Behavior of vortices near twin boundaries in underdoped Ba(Fe1-xCox)(2)As-2** *PHYSICAL REVIEW B*
  Kalisky, B., Kirtley, J. R., Analytis, J. G., Chu, J., Fisher, I. R., Moler, K. A.
  2011; 83 (6)
- **Local Measurement of the Superfluid Density in the Pnictide Superconductor Ba(Fe1-xCox)(2)As-2 across the Superconducting Dome** *PHYSICAL REVIEW LETTERS*
  Luan, L., Lippman, T. M., Hicks, C. W., Bert, J. A., Auslaender, O. M., Chu, J., Analytis, J. G., Fisher, I. R., Moler, K. A.
  2011; 106 (6)
- **HIGH-TEMPERATURE SUPERCONDUCTIVITY How the cuprates hid their stripes** *NATURE*
  Moler, K. A.
  2010; 468 (7324): 643-644
- **Limits on superconductivity-related magnetization in Sr2RuO4 and PrOs4Sb12 from scanning SQUID microscopy** *PHYSICAL REVIEW B*
  Hicks, C. W., Kirtley, J. R., Lippman, T. M., Koshnick, N. C., Huber, M. E., Maeno, Y., Yuhasz, W. M., Maple, M. B., Moler, K. A.
  2010; 81 (21)
- **Meissner response of a bulk superconductor with an embedded sheet of reduced penetration depth** *PHYSICAL REVIEW B*
  Kirtley, J. R., Kalisky, B., Luan, L., Moler, K. A.
  2010; 81 (18)
- **Stripes of increased diamagnetic susceptibility in underdoped superconducting Ba(Fe(1-x)Cox)(2)As-2 single crystals: Evidence for an enhanced superfluid density at twin boundaries** *PHYSICAL REVIEW B*
  Kalisky, B., Kirtley, J. R., Analytis, J. G., Chu, J., Vailionis, A., Fisher, I. R., Moler, K. A.
  2010; 81 (18)
- **Local measurement of the penetration depth in the pnictide superconductor Ba(Fe0.95Co0.05)(2)As-2** *PHYSICAL REVIEW B*
  Luan, L., Auslaender, O. M., Lippman, T. M., Hicks, C. W., Kalisky, B., Chu, J., Analytis, J. G., Fisher, I. R., Kirtley, J. R., Moler, K. A.
  2010; 81 (10)
- **Sequential vortex hopping in an array of artificial pinning centers** *PHYSICAL REVIEW B*
  Keay, J. C., Larson, P. R., Hobbs, K. L., Johnson, M. B., Kirtley, J. R., Auslaender, O. M., Moler, K. A.
  2009; 80 (16)
- **Evidence for a Nodal Energy Gap in the Iron-Pnictide Superconductor LaFePO from Penetration Depth Measurements by Scanning SQUID Susceptometry** *PHYSICAL REVIEW LETTERS*
  Hicks, C. W., Lippman, T. M., Huber, M. E., Analytis, J. G., Chu, J., Erickson, A. S., Fisher, I. R., Moler, K. A.
  2009; 103 (12)
- **Spinlike Susceptibility of Metallic and Insulating Thin Films at Low Temperature** *PHYSICAL REVIEW LETTERS*
  Bluhm, H., Bert, J. A., Koshnick, N. C., Huber, M. E., Moler, K. A.
  2009; 103 (2)
- **Magnetic force microscopy study of interlayer kinks in individual vortices in the underdoped cuprate superconductor YBa2Cu3O6+x** *PHYSICAL REVIEW B*
  Luan, L., Auslaender, O. M., Bonn, D. A., Liang, R., Hardy, W. N., Moler, K. A.
  2009; 79 (21)
- **Dynamics of single vortices in grain boundaries: I-V characteristics on the femtovolt scale** *APPLIED PHYSICS LETTERS*
  Kalisky, B., Kirtley, J. R., Nowadnick, E. A., Dinner, R. B., Zeldov, E., Ariando, Wenderich, S., Hilgenkamp, H., Feldmann, D. M., Moler, K. A.
  2009; 94 (20)

- **Persistent Currents in Normal Metal Rings** *PHYSICAL REVIEW LETTERS*
  Bluhm, H., Koshnick, N. C., Bert, J. A., Huber, M. E., Moler, K. A.
  2009; 102 (13)
- **Mott insulator phases and first-order melting in Bi2Sr2CaCu2O8+delta crystals with periodic surface holes** *PHYSICAL REVIEW B*
  Goldberg, S., Segev, Y., Myasoedov, Y., Gutman, I., Avraham, N., Rappaport, M., Zeldov, E., Tamegai, T., Hicks, C. W., Moler, K. A.
  2009; 79 (6)
- **Limits on the Superconducting Order Parameter in NdFeAsO1-xFy from Scanning SQUID Microscopy** *JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN*
  Hicks, C. W., Lippman, T. M., Huber, M. E., Ren, Z., Yang, J., Zhao, Z., Moler, K. A.
  2009; 78 (1)
- **Mechanics of individual isolated vortices in a cuprate superconductor** *NATURE PHYSICS*
  Auslaender, O. M., Luan, L., Straver, E. W., Hoffman, J. E., Koshnick, N. C., Zeldov, E., Bonn, D. A., Liang, R., Hardy, W. N., Moler, K. A.
  2009; 5 (1): 35-39
- **A terraced scanning superconducting quantum interference device susceptometer with submicron pickup loops** *APPLIED PHYSICS LETTERS*
  Koshnick, N. C., Huber, M. E., Bert, J. A., Hicks, C. W., Large, J., Edwards, H., Moler, K. A.
  2008; 93 (24)
- **Scanning SQUID microscopy on polycrystalline SmFeAsO0.85 and NdFeAsO0.94F0.06** *JOURNAL OF THE PHYSICAL SOCIETY OF JAPAN*
  Hicks, C. W., Lippman, T. M., Moler, K. A., Huber, M. E., Ren, Z., Zhao, Z.
  2008; 77: 87-90
- **Controlled manipulation of individual vortices in a superconductor** *APPLIED PHYSICS LETTERS*
  Straver, E. W., Hoffman, J. E., Auslaender, O. M., Rugar, D., Moler, K. A.
  2008; 93 (17)
- **Gradiometric micro-SQUID susceptometer for scanning measurements of mesoscopic samples** *REVIEW OF SCIENTIFIC INSTRUMENTS*
  Huber, M. E., Koshnick, N. C., Bluhm, H., Archuleta, L. J., Azua, T., Bjornsson, P. G., Gardner, B. W., Halloran, S. T., Lucero, E. A., Moler, K. A.
  2008; 79 (5)
- **Two-dimensional vortex behavior in highly underdoped YBa2Cu3O6+x observed by scanning Hall probe microscopy** *PHYSICAL REVIEW B*
  Guikema, J. W., Bluhm, H., Bonn, D. A., Liang, R., Hardy, W. N., Moler, K. A.
  2008; 77 (10)
- **Dissipative cryogenic filters with zero dc resistance** *REVIEW OF SCIENTIFIC INSTRUMENTS*
  Bluhm, H., Moler, K. A.
  2008; 79 (1)
- **Fluctuation superconductivity in mesoscopic aluminum rings** *SCIENCE*
  Koshnick, N. C., Bluhm, H., Huber, M. E., Moler, K. A.
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- **Moment switching in nanotube magnetic force probes** *NANOTECHNOLOGY*
  Kirtley, J. R., Deng, Z., Luan, L., Yenilmez, E., Dai, H., Moler, K. A.
  2007; 18 (46)
- **Upper limit on spontaneous supercurrents in Sr2RuO4** *PHYSICAL REVIEW B*
  Kirtley, J. R., Kallin, C., Hicks, C. W., Kim, E., Liu, Y., Moler, K. A., Maeno, Y., Nelson, K. D.
  2007; 76 (1)
- **Enhanced current flow through meandering grain boundaries in YBa2Cu3O7-delta films** *APPLIED PHYSICS LETTERS*
  Dinner, R. B., Moler, K. A., Beasley, M. R., Feldmann, D. M.
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- **Magnetic response of mesoscopic superconducting rings with two order parameters (vol 97, art no 237002, 2006)** *PHYSICAL REVIEW LETTERS*

Bluhm, H., Koshnick, N. C., Huber, M. E., Moler, K. A.
2007; 98 (20)

- **Imaging ac losses in superconducting films via scanning Hall probe microscopy** *PHYSICAL REVIEW B*
  Dinner, R. B., Moler, K. A., Feldmann, D. M., Beasley, M. R.
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- **Noise characteristics of 100 nm scale GaAs/AlxGa1-xAs scanning Hall probes** *APPLIED PHYSICS LETTERS*
  Hicks, C. W., Luan, L., Moler, K. A., Zeldov, E., Shtrikman, H.
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