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ResearcherID: B-5821-2008



Background

Birth 5th of March, 1978 in Tübingen, Germany
Citizenship Italy, USA (dual)
Civil Status Married, 1 child
Languages English (native), Italian (native), Portuguese, German

Education

Dec. 2005 **Ph.D.** in Physics, University of California, Santa Barbara
Dec. 2003 **M.A.** in Physics, University of California, Santa Barbara
Jun. 2000 **B.A.** magna cum laude in Physics, Harvard University

Experience

Jan. 2014 - Present **Associate Professor of Physics** (tenured)
University of Basel, Department of Physics
Argovia Nanotechnology Professorship
Jan. 2009 - Dec. 2013 **Assistant Professor of Physics** (tenure track)
University of Basel, Department of Physics
Argovia Nanotechnology Professorship
Jan. 2006 - Dec. 2008 **Post Doctoral Researcher**
IBM Almaden Research Center / Stanford University
Manager: Dr. Dan Rugar
Sep. 2000 - Dec. 2005 **Graduate Research Assistant**
University of California, Santa Barbara, Department of Physics
Thesis advisor: Prof. David Awschalom

Awards and Honors

Jun. 2013 **European Research Council (ERC) Starting Grant** providing up to 1.5M EUR over 5 years for promising young principal investigators with an excellent research proposal. 287 of 3329 proposals (9%) were approved.
Apr. 2010 **Cozzarelli Prize** recognizing recently published PNAS papers of outstanding scientific excellence and originality. "Nanoscale magnetic resonance imaging" recognized among 6 of 4220 papers in 2009.

Articles (peer-reviewed)

Citation statistics available at <http://www.researcherid.com/rid/B-5821-2008> or through *Web of Science* by searching for *ResearcherID* B-5821-2008. **H-index = 20** as of Sep. 2016.

Affiliation color-code: **Basel**; **IBM / Stanford**; **Santa Barbara**

2016

(A41) Vectorial scanning force microscopy using a nanowire sensor

N. Rossi, F. R. Braakman, D. Cadeddu, D. Vasyukov, G. Tütüncüoğlu, A. Fontcuberta i Morral, and M. Poggio
Nat. Nanotechnol., in press; [arXiv:1604.01073](https://arxiv.org/abs/1604.01073).

(A40) Nuclear spin coherence in a quantum dot: role of the electron spin

G. Wüst, M. Munsch, F. Maier, A. V. Kuhlmann, A. Ludwig, A. D. Wieck, D. Loss, M. Poggio, and R. J. Warburton

Nat. Nanotechnol. **11**, 885 (2016).

Related article: *Uni News*, 11 July 2016.

(A39) Dynamic cantilever magnetometry of individual CoFeB nanotubes

B. Gross, D. P. Weber, D. Ruffer, A. Buchter, F. Heimbach, A. Fontcuberta i Morral, D. Grundler, and M. Poggio

Phys. Rev. B **93**, 064409 (2016).

(A38) Time-resolved nonlinear coupling between orthogonal flexural modes of a pristine GaAs nanowire

D. Cadeddu, F. R. Braakman, G. Tütüncüoğlu, F. Matteini, D. Ruffer, A. Fontcuberta i Morral, and M. Poggio

Nano Lett. **16**, 926 (2016).

(A37) A fiber-coupled quantum-dot on a photonic tip

D. Cadeddu, J. Teissier, F. R. Braakman, J. M. Gérard, J. Claudon, R. J. Warburton, M. Poggio, and M. Munsch

Appl. Phys. Lett. **108**, 011112 (2016).

2015

(A36) Magnetization reversal of an individual exchange-biased permalloy nanotube

A. Buchter, R. Wölbing, M. Wyss, O. F. Kieler, T. Weimann, J. Kohlmann, A. B. Zorin, D. Ruffer, F. Matteini, G. Tütüncüoğlu, F. Heimbach, A. Kleibert, A. Fontcuberta i Morral, D. Grundler, R. Kleiner, D. Koelle, and M. Poggio

Phys. Rev. B **92**, 214432 (2015).

(A35) Reduction of dissipation in nanomechanical Si resonators by chemical surface protection

Y. Tao, P. Navaretti, R. Hauret, U. Grob, M. Poggio, and C. L. Degen

Nanotechnology **26**, 465501 (2015).

(A34) Stabilized skyrmion phase in MnSi nanowires detected by dynamic cantilever magnetometry

A. Mehlin, F. Xue, D. Liang, H. Du, M. J. Stolt, S. Jin, M. Tian, and M. Poggio

Nano Lett. **15**, 4839 (2015).

2014

(A33) Nonlinear motion and mechanical mixing in as-grown GaAs nanowires

F. R. Braakman, D. Cadeddu, G. Tütüncüoğlu, F. Matteini, D. Ruffer, A. Fontcuberta i Morral, and M. Poggio

Appl. Phys. Lett. **105**, 173111 (2014).

(A32) Manipulation of the nuclear spin ensemble in a quantum dot with chirped magnetic resonance pulses

M. Munsch, G. Wüst, A. Kuhlmann, F. Xue, A. Ludwig, D. Reuter, A. D. Wieck, M. Poggio, and R. J. Warburton

Nat. Nanotechnol. **9**, 671 (2014).

Related article: *Uni News*, 16 September 2014.

(A31) Boundary between the thermal and statistical polarization regimes in a nuclear spin ensemble

B. E. Herzog, D. Cadeddu, F. Xue, P. Peddibhotla, and M. Poggio

Appl. Phys. Lett. **105**, 043112 (2014).

(A30) Quantum dot opto-mechanics in a fully self-assembled nanowire

M. Montinaro, G. Wüst, M. Munsch, Y. Fontana, E. Russo-Averchi, M. Heiss, A. Fontcuberta i Morral, R. J. Warburton, and M. Poggio

Nano Lett. **14**, 4454 (2014).

(A29) Vortex lattice melting of a NbSe₂ single grain probed by ultrasensitive cantilever magnetometry

L. Bossoni, P. Carretta, and M. Poggio

Appl. Phys. Lett. **104**, 182601 (2014).

2013

(A28) Harnessing nuclear spin polarization fluctuations in a semiconductor nanowire

P. Peddibhotla, F. Xue, H. I. T. Hauge, S. Assali, E. P. A. M. Bakkers, and M. Poggio

Nat. Phys. **9**, 631 (2013).

Related article: *Uni News*, 26 August 2013.

(A27) Charge noise and spin noise in a semiconductor quantum device

A. V. Kuhlmann, J. Houel, L. Greuter, A. Ludwig, A. D. Wieck, M. Poggio, and R. J. Warburton

Nat. Phys. **9**, 570 (2013).

Related articles: *Nat. Phys.* **9**, 538 (2013); *Uni News*, 02 October 2013.

(A26) Nanoscale multifunctional sensor formed by a Ni nanotube and a scanning Nb nanoSQUID

J. Nagel, A. Buchter, F. Xue, O. F. Kieler, T. Weimann, J. Kohlmann, A. B. Zorin, D. Ruffer, E. Russo-Averchi, R. Huber, P. Berberich, A. Fontcuberta i Morral, D. Grundler, R. Kleiner, D. Koelle, M. Poggio, and M. Kemmler

Phys. Rev. B **88**, 064425 (2013).

(A25) Reversal mechanism of an individual Ni nanotube simultaneously studied by torque and SQUID magnetometry

A. Buchter, J. Nagel, D. Ruffer, F. Xue, D. P. Weber, O. F. Kieler, T. Weimann, J. Kohlmann, A. B. Zorin, E. Russo-Averchi, R. Huber, P. Berberich, A. Fontcuberta i Morral, M. Kemmler, R. Kleiner, D. Koelle, D. Grundler, and M. Poggio

Phys. Rev. Lett. **111**, 067202 (2013).

2012

(A24) Cantilever magnetometry of individual Ni nanotubes

D. P. Weber, D. Ruffer, A. Buchter, F. Xue, E. Russo-Averchi, R. Huber, P. Berberich, J. Arbiol, A. Fontcuberta i Morral, D. Grundler, and M. Poggio

Nano Lett. **12**, 6139 (2012).

(A23) Feedback cooling of cantilever motion using a quantum point contact transducer

M. Montinaro, A. Mehlin, H. S. Solanki, P. Peddibhotla, S. Mack, D. D. Awschalom, and M. Poggio

Appl. Phys. Lett. **101**, 133104 (2012).

(A22) Probing single-charge fluctuations at a GaAs/AlAs interface using laser spectroscopy on a nearby InGaAs quantum dot

J. Houel, A. V. Kuhlmann, L. Greuter, F. Xue, M. Poggio, B. D. Gerardot, P. A. Dalgarno, A. Badolato, P. M. Petroff, A. Ludwig, D. Reuter, A. D. Wieck, and R. J. Warburton

Phys. Rev. Lett. **108**, 107401 (2012).

2011

(A21) Measurement of statistical nuclear spin polarization in a nanoscale GaAs sample

Fei Xue, D. P. Weber, P. Peddibhotla, and M. Poggio

Phys. Rev. B **84**, 205328 (2011).

(A20) A geometry for optimizing nanoscale magnetic resonance force microscopy

Fei Xue, P. Peddibhotla, M. Montinaro, D. P. Weber, and M. Poggio

Appl. Phys. Lett. **98**, 163103 (2011).

- 2010 **(A19) Frequency domain multiplexing of force signals with application to magnetic resonance force microscopy**
T. H. Oosterkamp, M. Poggio, C. L. Degen, H. J. Mamin, and D. Rugar
Appl. Phys. Lett. **96**, 083107 (2010).
- 2009 **(A18) Isotope-selective detection and imaging of organic nanolayers**
H. J. Mamin, T. H. Oosterkamp, M. Poggio, C. L. Degen, C. T. Rettner, and D. Rugar
Nano Lett. **9**, 3020 (2009).
- (A17) Nuclear double resonance between statistical spin polarizations**
M. Poggio, H. J. Mamin, C. L. Degen, M. H. Sherwood, and D. Rugar
Phys. Rev. Lett. **102**, 087604 (2009).
Related article: *Physics*, 16 March 2009.
- (A16) Nanoscale magnetic resonance imaging**
C. L. Degen, M. Poggio, H. J. Mamin, C. T. Rettner, and D. Rugar
Proc. Natl. Acad. Sci. U.S.A. **106**, 1313 (2009).
Related articles: *Nature News*, 12 January 2009; *The New York Times*, 13 January 2009, p. D3; *Technology Review*, 13 January 2009; *Nat. Nanotechnol.* **4**, 76 (2009); *The Stanford Report*, 28 January 2009; *Proc. Natl. Acad. Sci. U.S.A.* **106**, 2477 (2009); *Nat. Methods* **6**, 192 (2009); *Nat. Biotechnol.* **27**, 254 (2009); *Nature* **458**, 844 (2009).
- 2008 **(A15) An off-board quantum point contact as a sensitive detector of cantilever motion**
M. Poggio, M. P. Jura, C. L. Degen, M. A. Topinka, H. J. Mamin, D. Goldhaber-Gordon, and D. Rugar
Nat. Phys. **4**, 635 (2008).
- (A14) Nuclear spin relaxation induced by a mechanical resonator**
C. L. Degen, M. Poggio, H. J. Mamin, and D. Rugar
Phys. Rev. Lett. **100**, 137601 (2008).
- 2007 **(A13) Role of spin noise in the detection of nanoscale ensembles of nuclear spins**
C. L. Degen, M. Poggio, H. J. Mamin, and D. Rugar
Phys. Rev. Lett. **99**, 250601 (2007).
- (A12) Feedback cooling of a cantilever's fundamental mode below 5 mK**
M. Poggio, C. L. Degen, H. J. Mamin, and D. Rugar
Phys. Rev. Lett. **99**, 017201 (2007).
- (A11) Nuclear magnetic resonance force microscopy with a microwire rf source**
M. Poggio, C. L. Degen, C. T. Rettner, H. J. Mamin, and D. Rugar
Appl. Phys. Lett. **90**, 263111 (2007).
- (A10) Nuclear magnetic resonance imaging with 90-nm resolution**
H. J. Mamin, M. Poggio, C. L. Degen, and D. Rugar
Nat. Nanotechnol. **2**, 301 (2007).
Related articles: *Nat. Nanotechnol.* **2**, 267 (2007); *Physics News Update*, Number 824 #1 (2007); *USA Today*, 29 April 2007; *Technology Review*, 23 April 2007; *Nature* **450**, 1130 (2007).
- (A9) Confinement engineering of s - d exchange interactions in $\text{Ga}_{1-x}\text{Mn}_x\text{As}/\text{Al}_y\text{Ga}_{1-y}\text{As}$ quantum wells**
N. P. Stern, R. C. Myers, M. Poggio, A. C. Gossard, and D. D. Awschalom
Phys. Rev. B **75**, 045329 (2007).

- 2005 **(A8) Structural, electrical, and magneto-optical characterization of paramagnetic GaMnAs quantum wells**
M. Poggio, R. C. Myers, N. P. Stern, A. C. Gossard, and D. D. Awschalom
[Phys. Rev. B **72**, 235313 \(2005\).](#)
- (A7) Spin dynamics in electrochemically charged CdSe quantum dots**
N. P. Stern, M. Poggio, M. H. Bartl, E. L. Hu, G. D. Stucky, and D. D. Awschalom
[Phys. Rev. B **72**, 161303\(R\) \(2005\).](#)
- (A6) Antiferromagnetic s - d exchange coupling in GaMnAs**
R. C. Myers, M. Poggio, N. P. Stern, A. C. Gossard, and D. D. Awschalom
[Phys. Rev. Lett. **95**, 017204 \(2005\).](#)
- (A5) High-field optically detected nuclear magnetic resonance in GaAs**
M. Poggio and D. D. Awschalom
[Appl. Phys. Lett. **86**, 182103 \(2005\).](#)
- 2004 **(A4) Spin transfer and coherence in coupled quantum wells**
M. Poggio, G. M. Steeves, R. C. Myers, N. P. Stern, A. C. Gossard, and D. D. Awschalom
[Phys. Rev. B **70**, 121305\(R\) \(2004\).](#)
- 2003 **(A3) Local manipulation of nuclear spin in a semiconductor quantum well**
M. Poggio, G. M. Steeves, R. C. Myers, Y. Kato, A. C. Gossard, and D. D. Awschalom
[Phys. Rev. Lett. **91**, 207602 \(2003\).](#)
Related article: [Physics News Update, Number 622 #2 \(2003\).](#)
- 2002 **(A2) Quantum information processing with large nuclear spins in GaAs semiconductors**
M. N. Leuenberger, D. Loss, M. Poggio, and D. D. Awschalom
[Phys. Rev. Lett. **89**, 207601 \(2002\).](#)
- 2001 **(A1) Spin coherence and dephasing in GaN**
B. Beschoten, E. Johnston-Halperin, D. K. Young, M. Poggio, J. E. Grimaldi, S. Keller, S. P. DenBaars, U. K. Mishra, E. L. Hu, and D. D. Awschalom
[Phys. Rev. B **63**, 121202\(R\) \(2001\).](#)

Reviews (peer-reviewed)

- 2010 **(R1) Force-detected nuclear magnetic resonance: recent advances and future challenges**
M. Poggio and C. L. Degen
[Nanotechnology **21**, 342001 \(2010\).](#)
Related article: nanotechweb.org, 26 August 2010.

Conference Proceedings (peer-reviewed)

- 2006 **(C1) Nuclear and ion spins in semiconductor nanostructures**
M. Poggio, R. C. Myers, G. M. Steeves, N. P. Stern, A. C. Gossard, and D. D. Awschalom
[Physica E **35**, 264 \(2006\).](#)

News & Opinion

- 2013 **(N3) Sensing from the bottom up**
M. Poggio
[Nat. Nanotechnol. 8, 482 \(2013\).](#)
- 2010 **(N2) Taking MRI to the nanoscale by force**
M. Poggio
[nanotechweb.org, 26 August 2010.](#)
- 2004 **(N1) Francis Harry Compton Crick**
T. Poggio and M. Poggio
[Phys. Today 57, 80 \(2004\).](#)

Book Chapters

- 2014 **(B2) Hybrid Mechanical Systems**
P. Treutlein, C. Genes, K. Hammerer, M. Poggio, and P. Rabl
[Cavity Optomechanics, M. Aspelmeyer, T. Kippenberg, F. Marquardt, Eds., Springer \(2014\), pp. 327-351.](#)
- 2012 **(B1) Magnetic Resonance Force Microscopy**
M. Poggio and C. L. Degen
[Encyclopedia of Nanotechnology, B. Bhushan, Ed., Springer-Verlag, \(2012\), pp. 1256-1264.](#)

Other Publications

- 2005 **(O2) Spin Interactions Between Conduction Electrons and Local Moments in Semiconductor Quantum Wells**
M. Poggio
[Ph.D. Thesis in Physics.](#)
- 1994 **(O1) Cooperative physics of fly swarms: an emergent behavior**
M. Poggio and T. Poggio
[M.I.T. A.I. Memo 1512 \(1994\).](#)

Invited Presentations

- Mar. 2017 **(I69) Vectorial scanning force microscopy using a nanowire sensor**
Trends in Nanoscience 2017, Kloster Irsee, Germany
- Feb. 2017 **(I68) Vectorial scanning force microscopy using a nanowire sensor**
Frontiers of Nanomechanical Systems, La Thuile, Italy
- Nov. 2016 **(I67) Vectorial scanning force microscopy using a nanowire sensor**
German-Japanese Workshop on Hybrid Quantum Systems, Berlin, Germany
- Jun. 2016 **(I66) Vectorial scanning force microscopy using a nanowire sensor**
Swiss Nano Convention, Basel, Switzerland
- Dec. 2015 **(I65) Nanometer-scale magnetometry**
Seminar of Biomedical Magnetic Resonance, Institute for Biomedical Engineering, ETH, Zürich, Switzerland
- Oct. 2015 **(I64) Sensing with multi-functional nanowires**
8th Nanowires Workshop (2015), Barcelona, Spain

- Sep. 2015* **(I63) Scanning nanowire sensors**
Swiss Nanoscience Institute Annual Meeting, Lenzerheide, Switzerland
- Aug. 2015* **(I62) Measuring nanometer-scale spin systems by ultrasensitive cantilever magnetometry**
The 8th International School and Conference on Spintronics and Quantum Information Technology (SpinTech VIII), University of Basel, Basel, Switzerland
- Jul. 2015* **(I61) Measuring nanometer-scale spin systems by ultrasensitive cantilever magnetometry**
5th NanoMRI Conference, Institute for Quantum Computing, Waterloo, Canada
- Jun. 2015* **(I60) Measuring nanometer-scale spin systems by ultrasensitive cantilever magnetometry**
Spin Mechanics 3, Munich, Germany
- Mar. 2015* **(I59) Nanometer-scale Magnetometry**
Seminar, Leibniz Institute for Solid State and Materials Research (IFW), Dresden, Germany
- Feb. 2015* **(I58) Nanometer-scale Magnetometry**
Seminar of the 3. Physikalisches Institut, University of Stuttgart, Germany
- Dec. 2014* **(I57) Nanometer-scale Magnetometry**
Nanoscale Science Department Seminar, Max-Planck Institute for Solid State Research, Stuttgart, Germany
- Sep. 2014* **(I56) Coupling nanomechanics to solid-state spin**
School on Nano-optomechanics, Strasbourg, France
- Sep. 2014* **(I55) Quantum dot opto-mechanics in a fully self-assembled nanowire**
Quantum Technologies Based On Hybrid Emitter - Solid State Systems, Strasbourg, France
- Jun. 2014* **(I54) Cantilever magnetometry of individual ferromagnetic nanotubes**
International Seminar on Nanomechanical Systems (NEMS 2014), Paris, France
- Apr. 2014* **(I53) Nano- and opto-mechanics of fully self-assembled nanowires**
Institute for Terahertz Science and Technology Seminar, University of California, Santa Barbara, CA, USA
- Mar. 2014* **(I52) Plenary talk: Harnessing nuclear spin polarization fluctuations in a semiconductor nanowire**
55th Experimental Nuclear Magnetic Resonance Conference (ENC), Boston, MA, USA
- Nov. 2013* **(I51) Nano-mechanics, nano-magnetometry, and nano-MRI**
544th Wilhelm und Else Heraeus-Seminar: Interactions with the Nanoworld: Local Probes with High Time, Energy and Force Resolution, Bad Honnef, Germany
- Oct. 2013* **(I50) Harnessing nuclear spin polarization fluctuations in a semiconductor nanowire**
Wide-bandgap Semiconductor Nanostructures, Nice, France
- Jul. 2013* **(I49) Harnessing nuclear spin polarization fluctuations in a semiconductor nanowire**
Quantum Nano- and Micromechanics, Monte Verità, Switzerland
- Jul. 2013* **(I48) Harnessing nuclear spin polarization fluctuations in a semiconductor nanowire**
3rd Workshop on Nanoscale Spin and Charge Dynamics, Cluj, Romania
- Jun. 2013* **(I47) Nano-mechanics, nano-magnetometry, and nano-MRI**
Seminar, Bruker BioSpin AG, Fällenden, Switzerland
- May 2013* **(I46) Nano-mechanics, nano-magnetometry, and nano-MRI**
International Workshop on Magnetic Nanowires and Nanotubes 2013, Kaub am Rhein, Germany
- Jan. 2013* **(I45) Nano-mechanics, nano-magnetometry, and nano-MRI**
Physics Department Seminar, Leeds University, Leeds, UK
- Oct. 2012* **(I44) Nano-mechanics, nano-magnetometry, and nano-MRI**
Quantum Nanoscience Seminar, Delft University of Technology, Delft, Netherlands

- Sep. 2012* (I43) **Plenary talk: Recent progress in force-detected MRI**
Advanced Magnetic Resonance for the Study of Dynamics in Biomolecules and Materials, Halle (Saale), Germany
- Jul. 2012* (I42) **Nano-mechanics, nano-magnetometry, and nano-MRI**
Physics Department Colloquium, University of Stuttgart, Stuttgart, Germany
- Jun. 2012* (I41) **Nano-mechanics, nano-magnetometry, and nano-MRI**
Physics Department Colloquium, Technical University of Dresden, Dresden, Germany
- Apr. 2012* (I40) **Nano-mechanics, nano-magnetometry, and nano-MRI**
Physics Department Colloquium, University of Tübingen, Tübingen, Germany
- Jan. 2012* (I39) **Recent progress in force-detected MRI**
Atomic, Mesoscopic, and Optical Physics Seminar, University of Cambridge, Cambridge, UK
- Sep. 2011* (I38) **Recent progress in force-detected MRI**
Recent Advances in Broad-Band Solid-State NMR of Correlated Electronic Systems, Trogir, Croatia
- Jul. 2011* (I37) **Recent progress in force-detected MRI**
Magnetic Resonance Microsystems, Freiburg, Germany
- Jul. 2011* (I36) **Recent progress in force-detected MRI**
Condensed Matter Seminar, Technical University, Munich, Germany
- Feb. 2011* (I35) **Magnetic resonance imaging with nanomechanics**
Advanced Atomic Force Microscopy Techniques, Karlsruhe, Germany
- Oct. 2010* (I34) **Towards nano-MRI in mesoscopic transport systems**
Workshop on Quantum Spintronics, Maratea, Italy
- Jul. 2010* (I33) **Towards nano-MRI in mesoscopic transport systems**
3rd NanoMRI Conference, Domaine du Tremblay, France
- Jun. 2010* (I32) **Plenary talk: Magnetic resonance imaging with nanomechanics**
Annual Meeting of the Swiss Physical Society, Basel, Switzerland
- May 2010* (I31) **Magnetic resonance imaging with nanomechanics**
The Zürich Physics Colloquium, ETH, Zürich, Switzerland
- May 2010* (I30) **Magnetic resonance imaging with nanomechanics**
Physics Department Seminar, University of Pavia, Pavia, Italy
- Feb. 2010* (I29) **Magnetic resonance imaging with nanomechanics**
Edgar Lüscher Seminar 2010: Neues aus der Festkörperphysik, Klosters, Switzerland
- Nov. 2009* (I28) **Magnetic resonance imaging with nanomechanics**
National School on the Physics of Matter: Physics of Spin in Materials, Chiavari, Italy
- Jul. 2009* (I27) **Ultra-sensitive force detection applied to magnetic resonance imaging**
International Workshop and School on Solid State Based Quantum Information Processing, Herrsching, Germany
- Jun. 2009* (I26) **Ultra-sensitive force detection applied to magnetic resonance imaging**
Spin and Charge Properties of Low Dimensional Systems, Sibiu, Romania
- Jun. 2009* (I25) **Ultra-sensitive force detection applied to magnetic resonance imaging**
Swiss Nano 2009, Basel, Switzerland
- Apr. 2009* (I24) **Ultra-sensitive force detection applied to magnetic resonance imaging**
Physics Department Seminar, University of Pisa, Pisa, Italy

- Apr. 2009* **(I23) Ultra-sensitive force detection applied to magnetic resonance imaging**
Physics Department Seminar, University of Genoa, Genoa, Italy
- Mar. 2009* **(I22) Ultra-sensitive force detection applied to magnetic resonance imaging**
Science & Technology Seminar, IBM Zürich Research Laboratory, Zürich, Switzerland
- Mar. 2009* **(I21) Ultra-sensitive force detection applied to magnetic resonance imaging**
Physics Department Seminar, University of Geneva, Geneva, Switzerland
- Mar. 2009* **(I20) Ultra-sensitive force detection applied to magnetic resonance imaging**
Physics Seminar, CNRS, Grenoble, France
- Feb. 2009* **(I19) Adventures in ultra-sensitive force detection**
Physics Department Colloquium, University of Basel, Basel, Switzerland
- Feb. 2009* **(I18) Adventures in ultra-sensitive force detection**
Solid State Physics Seminar, ETH, Zürich, Switzerland
- Jan. 2009* **(I17) Nanomechanics in the quantum world**
Nanoscience in the Snow, Eigergletscher, Switzerland
- May 2008* **(I16) Ultrasensitive force detection applied to nuclear magnetic resonance**
The 3rd Advanced Materials Failure Analysis Workshop, Phoenix, AZ, USA
- Mar. 2008* **(I15) Ultrasensitive force detection applied to nuclear magnetic resonance**
Physics Department Seminar, University of Basel, Basel, Switzerland
- Jan. 2008* **(I14) Ultrasensitive force detection applied to nuclear magnetic resonance**
Physics Department Seminar, University of Minnesota, Minneapolis, MN, USA
- Nov. 2007* **(I13) Ultrasensitive force detection applied to nuclear magnetic resonance**
Physics Department Seminar, University of Pittsburgh, Pittsburgh, PA, USA
- Oct. 2007* **(I12) Ultrasensitive force detection applied to nuclear magnetic resonance** (with Dr. Christian Degen)
Colloquium, IBM Almaden Research Center, San Jose, CA, USA
- Jul. 2007* **(I11) Nuclear magnetic resonance imaging with 90-nm resolution**
International Conference on Electronic Properties of Two-dimensional Systems and Modulated Semiconductor Structures, Genova, Italy
- Jul. 2007* **(I10) Ultrasensitive force detection applied to nuclear magnetic resonance**
Condensed Matter Seminar, Ludwig Maximilians University, Munich, Germany
- Mar. 2006* **(I9) Measurement of the s-d exchange coupling in GaMnAs quantum wells**
American Physical Society March Meeting, Baltimore, MD, USA
- Feb. 2006* **(I8) Manipulation of nuclear and ion spins in semiconductor nanostructures**
14th International Winterschool on New Developments in Solid State Physics – Charges and spins in nanostructures: basics and devices, Mauterndorf, Province of Salzburg, Austria
- Jul. 2005* **(I7) Local manipulation of nuclear spins in a semiconductor quantum well**
International Conference on Quantum Electronics 2005 and the Pacific Rim Conference on Lasers and Electro-Optics 2005 (IQEC/CLEO-PR 2005), Nippon Toshi Center Kaikan, Tokyo, Japan
- Jun. 2005* **(I6) Local manipulation of nuclear spins in semiconductor nanostructures**
Gordon Research Conference on Magnetic Resonance, Connecticut College, New London, CT, USA
- Oct. 2004* **(I5) Optoelectronic manipulation of spins in quantum wells: harnessing local magnetic interactions**
International Workshop sponsored by the Nanoscale Science and Engineering Center: Frontiers in Nanoscale Science and Technology, Harvard University, Cambridge, MA, USA

May 2004

(I4) Manipulating nuclear spins in semiconductors: a future information storage technology?

Materials Structures and Devices (MSD) Focus Center Teleseminar Series, Teleconference Presentation

Mar. 2004

(I3) Local manipulation of nuclear spin in a semiconductor quantum well

American Physical Society March Meeting, Montreal, Canada

Jan. 2004

(I2) Local manipulation of nuclear spin in a semiconductor quantum well

The 34th Winter Colloquium on the Physics of Quantum Electronics, Snowbird, UT, USA

Jul. 2003

(I1) Local manipulation of nuclear spin in a semiconductor quantum well

International Conference on Magnetism, Rome, Italy