

Ania Bleszynski Jayich

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(a) Professional Preparation

Stanford University, Physics (B.S.), 2000

Stanford University, Mathematical and Computational Science (B.S.), 2000

Harvard University, Physics (PhD), 2006

Postdoctoral Institution: Yale University, 2006-2009

(b) Appointments

01/2016 – present	Associate Director, NSF MRSEC Materials Research Lab
08/2015 – present	Associate Professor of Physics, University of California, Santa Barbara
08/2010 – present	Bruker Endowed Chair in Science and Engineering, UC Santa Barbara
08/2010 – 07/2015	Assistant Professor of Physics, University of California, Santa Barbara
09/2009 – 8/2010	Visiting Scholar, Lukin group, Harvard University
05/2008 – 05/2009	L’Oreal For Women in Science postdoctoral fellow

Honors: NSF CAREER Award (2014), Presidential Early Career Award for Science and Engineering (2012); Air Force Office of Scientific Research Young Investigator Award (2010); L’Oreal Postdoctoral Fellowship for Women in Science (2008) (\$40,000 research award); Aspen Center for Physics Frontiers in Condensed Matter Systems Conference: Martin and Beate Block Winter Fund Award for outstanding young scientist (2008); International Conference on the Physics of Semiconductors (ICPS2006) Young Scientist Award.

(c) Publications

(i) Five publications most closely related to the proposed project:

- J.C. Lee, D.O. Bracher, S. Cui, K. Ohno, C.A. McLellan, X. Zhang, P. Andrich, B. Aleman, K.J. Russel, A.P. Magyar, I. Aharonovich, A.C. Bleszynski Jayich, D.D. Awschalom, E.L. Hu, *Deterministic coupling of delta-doped NV centers to a nanobeam photonic crystal cavity*, Applied Physics Letters **105**, 261101 (2014).
- P. Ovartchaiyapong, K. W. Lee, B. A. Myers, A. C. Bleszynski Jayich, *Dynamic strain-mediated coupling of a single diamond spin to a mechanical resonator*, Nature Communications **5**, 4429 (2014).
- B. A. Myers, M. C. Dartailh, K. Ohno, A. Das, D. D. Awschalom, A. C. Bleszynski Jayich, *Probing surface noise with depth-calibrated spins in diamond*, Phys. Rev. Lett. **113**, 027602 (2014).
- P. Ovartchaiyapong, L. M. A. Pascal, B. A. Myers, P. Lauria, A. C. Bleszynski Jayich, *High quality factor single-crystal diamond mechanical resonators*, App. Phys. Lett. **101**, 163505 (2012).
- S. Kolkowitz*, A. C. Bleszynski Jayich*, Q. Unterreithmeier, S. D. Bennett, P. Rabl, J. G. E. Harris, M. D. Lukin, *Coherent Sensing of a Mechanical Resonator with a Single-Spin Qubit*, Science **335**, 1603 (2012). (* = co-authors)

(ii) Five other significant publications:

- K. Ohno, F. J. Heremans, L. C. Bassett, B. A. Myers, D. M. Toyli, A. C. Bleszynski Jayich, C. J. Palmstrom, D. D. Awschalom, *Engineering shallow spins in diamond with nitrogen delta-doping*, App. Phys. Lett. **101**, 082413 (2012).
- K. Ohno, F. J. Heremans, C. F. de las Casas, B. A. Myers, B. J. Aleman, A. C. Bleszynski Jayich, D. D. Awschalom, *Three dimensional localization of spins in diamond using ^{12}C implantation*, App. Phys. Lett. **105**, 052406 (2014).

- S. D. Bennett, S. Kolkowitz, Q. P. Unterreithmeier, P. Rabl, A. C. Bleszynski Jayich, J. G. E. Harris and M. D. Lukin, *Measuring mechanical motion with a single spin*, New Journal of Physics **14**, 125004 (2012).
- A. C. Bleszynski-Jayich, W. E. Shanks, B. Peaudecerf, E. Ginossar, F. von Oppen, L. Glazman, J. G. E. Harris, *Persistent Currents in Normal Metal Rings*, Science **326**, 272 (2009).
- A. C. Bleszynski-Jayich, W. E. Shanks, J. G. E. Harris, *Noise thermometry and electron thermometry of a sample-on-cantilever system below 1 Kelvin*, Appl. Phys. Lett. **92**, 013123 (2008).

(d) Synergistic Activities

- Women in Physics advisor (2010-current), UCSB Physics Dept.
- Society of Physics Students Faculty advisor (2013-2014), UCSB Physics Dept.
- Advisor on Physical Review X Visiting Committee (2014)
- Review panelist for L'Oreal For Women in Science Fellowship (2014)
- Conference Organizer, Rocky Mountain Conference on Magnetic Resonance (July 2015, July 2016). German-American Frontiers of Science Conference, Berlin (May, 2012). Artificial Atoms in Diamond, ITAMP Harvard University (Nov, 2010).

(e) Collaborators & Other Affiliations.

(i) Collaborators and Co-Editors:

David Awschalom (UCSB); Erik Bakkers (Philips Research Labs, Eindhoven); Andrew Cleland (UCSB); Viatcheslav Dobrovitski (Iowa State Univ); Mark Ellisman (UCSD); Michael Flatte (U. of Iowa); Leonid Glazman (Yale); Jack Harris (Yale); Eric Heller (Harvard); Evelyn Hu (Harvard); Rob Ilic (Cornell); Jeff Kimble (Cal Tech); Ken Kosik (UCSB); Leo Kouwenhoven (Delft); Misha Lukin (Harvard); Ni Ni (UCLA); Oskar Painter (Cal Tech); Chris Palmstrom (UCSB); Daniel Rugar (IBM); Susanne Stemmer (UCSB); Felix von Oppen (Freie Universität Berlin); Stephen Wilson (UCSB)

(ii) Graduate Advisor and Postdoctoral Sponsors:

R. M. Westervelt (Harvard), J. G. E. Harris (Yale).

(iii) Thesis Advisor and Postgraduate-Scholar Sponsor:

Graduate Students Advised (total 6):

Past: Matthieu Dartiailh (masters student, ENS, Paris), Jens Boss (masters student, ETH Zurich), Danijela Markovic (masters student, ETH Zurich), Thomas Chalopin (masters student, ENS, Paris)

Current: Bryan Myers, Preeti Ovarthaiyapong, Claire McLellan, Kenny Lee, Alec Jenkins, Jeff Cady, Christian Vasquez Dietiker (ETH, Zurich), Alexandre Evrard (ENS, Paris)

Postdoctoral Associates Sponsored:

Past: Donghun Lee, Laetitia Pascal

Current: Amila Ariyaratne, Tim Eichorn, Matthew Pelliccione

Undergraduate Students Advised:

Past: Paul Lauria, Victor Spiro Jaeger, Eric Miller, Gino Graziano, Ananda Das, Ilan Rosen, Yuanchi Qing, Oscar Erlandsson

Current: Joseph Qie, Christopher Reetz