

Curriculum Vitae (abbreviated)
Lauren Hsu

Citizenship: U.S.

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Education

- Cornell University, Ph.D. Physics, May 2004
- Cornell University, M.S. Physics, May 2001
- Johns Hopkins University, B.A., summa cum laude May 1997

Research Appointments

- Fermilab Particle Physics Division, Associate Scientist, June 2012-present
- Fermilab Center for Particle Astrophysics, Postdoctoral Research Associate, June 2007-May 2012
- Lawrence Berkeley National Laboratory Nuclear Science Division Postdoctoral Fellow, June 2006-May 2007
- Lawrence Berkeley National Laboratory E.O. Lawrence Postdoctoral Fellow, June 2004-June 2006
- Cornell University Graduate Research Associate, 1999-2004

Research Collaborations

- SuperCDMS (10 and 200 kg phases): Search for elastic scattering of WIMPs, currently serving as SuperCDMS analysis coordinator, SuperCDMS SNOLAB R&D, past service as DAQ, Data Quality and Computing group convener, 2008 - present

- Cryogenic Dark Matter Search (CDMS II): Search for elastic scattering of WIMPs, DAQ, Data Quality and Computing group convener, lead author of reconstruction software, 2008 - present
- DM-Ice collaboration: Development of an NaI dark matter experiment, background simulations, NaI sensitivity studies, 2010 - present
- Kamioka Liquid scintillator Anti-Neutrino Detector (KamLAND): precision measurements of neutrino oscillations, coordinator of detector simulations, calibration deployment expert, 2004-2009
- Daya Bay R&D Collaboration: Development of a reactor neutrino experiment to measure θ_{13} , 2004-2005
- CLEOIII: precision measurements of semileptonic charm decays, 1999-2004

Awards and Honors

- Fermilab Reward and Recognition, Center for Particle Astrophysics, 2011 - *for work on SuperCDMS*
- Fermilab Exceptional Performance Recognition Award (EPRA), 2010 - *for work on the 5-tower CDMSII WIMP search analysis*
- E.O. Lawrence Postdoctoral Fellow, Named Fellowship, 2004-2006
- Phi Beta Kappa, inducted 1997
- Research Experiences for Undergraduates, Maria Mitchell Observatory, 1996
- Kerr medal, awarded by Johns Hopkins Physics Department, 1997 - *for highest physics GPA*
- Sylvester award, Johns Hopkins Mathematics Department, 1997 - *for highest math GPA*
- Undergraduate Scholarships: Elf Atochem, and Merck & Co., 1993

Outreach

- Interviewed by Margart Harris for IOP *Physics World* feature article, “Fermilab’s next Frontier”, provided audio interview and quotations on what its like to work on SuperCDMS, <http://physicsworld.com/cws/article/print/2012/feb/01/fermilabs-next-frontier>

- Illinois Mathematics and Science Academy, Student Inquiry Research mentor: Low-radioactivity material selection for SuperCDMS, August 2011 - April 2012
- Quarknet mentor: Investigating delayed scintillation in an NaI dark matter detector, July-August 2011
- SULI mentor: Simulations of SuperCDMS shielding, June-August 2011
- Quantum Diaries essay, “XENON takes the lead in dark matter race but CDMS not out”, April 2011 (among top 10 most read articles that month, also published in Fermilab Today), <http://www.quantumdiaries.org/2011/04/22/xenon-takes-lead-in-dark-matter-race-but-cdms-not-out/>
- Quantum Diaries essay, “CDMS: The uncertainty principle for dark matter searches”, March 2011 (among top 10 most read articles that month, also published in Fermilab Today), <http://www.quantumdiaries.org/2011/03/30/cdms-the-uncertainty-principle-for-dark-matter-searches/>
- SULI mentor: Sensitivity studies for a 200 kg NaI dark matter experiment, June-August 2010
- 2010 Soudan Underground Laboratory Public Open House: Presented introductions to the Cryogenic Dark Matter Search and performed cryogenic demonstrations for 500+ visitors, May 2010
- 2008 Quadrennial Congress of Sigma Pi Sigma: Musical demonstration of the Cryogenic Dark Matter Search, November 2008
- Fermilab Saturday Morning Physics Tour Guide, Spring 2008
- APS Division of Nuclear Physics ”Current Research Topics” web-series, “*KamLAND: Studying Neutrino Oscillation with Reactors*”, <http://dnp.aps.org/current/kamland.html>, 2004
- Laboratory of Elementary-Particle Physics (LEPP) Tour Guide - Conducted narrated tours of the CLEO and CESR facilities, 1999-2004
- “Expanding Your Horizons” Workshop Co-Coordinator - Instructed girls, aged 12-14, in building table-top cloud chambers to observe cosmic rays, 2001-2003

list of recent publications, invited seminars and conference talks available upon request.