

CV – Lenson Arthur Pellouchoud

Education

- Brown University class of 2008, Sc.B. with honors, Materials Science and Engineering
- Stanford University Materials Science & Engineering graduate study, fall 2010 - present

Employment and Research

- Stanford University Materials Science & Engineering; Computation and Theory Group
 - Full time, spring 2011 - present
 - Computational modeling for chemistry in extreme conditions; coherent control of molecular structures by terahertz fields
 - Reference: Prof. Evan Reed, 650-723-2971
- NIST Boulder Laboratories
 - Full time contractor, summer 2007, Nov. 2008 - June 2010
 - Fabrication and testing of niobium nitride thin films for superconducting single photon detectors; design/implementation of heated deposition system, automated plasma I-V measurement system, and automated cryogenic testing system for superconducting films; computational simulations for optical properties of multilayer structures; design and fabrication of optical resonant cavities for superconducting transition-edge sensors
 - References: Sae Woo Nam, 303-497-4533 ; Adriana Lita, 303-497-4608
- NASA Reduced-Gravity Student Flight Opportunities Program (RGSFOP)
 - Representing Brown Univ. Space Club 2007 - 2008, flight test June 2008
 - Automated acoustic manipulation of fluid droplets in reduced gravity
 - Reference: Prof. Kenneth Breuer, 401-863-2870
- NSF-funded summer research (Brown University MRSEC REU program)
 - Full time, summer 2006
 - Fabrication of superhydrophobic carbon films by chemical vapor deposition; hydrophobicity and resilience testing of coatings; poster at GRC for high-temperature materials research
 - Reference: Prof. Brian Sheldon, 401-863-2866
- Zen Machine and Scientific Instrument
 - Part time, summer 2001 - summer 2005
 - Machining (production, prototyping, one-off fabrication); machinery maintenance
 - Reference: Marty Gould, 303-823-5842

Academic Honors

- Magna cum laude, Brown University class of 2008
- Outstanding Senior award for Materials Engineering, Brown University 2008
- Phi Beta Kappa Academic Honor Society, inducted Spring 2008
- Tau Beta Pi Engineering Honors Society, inducted Fall 2007

Publications

- A.E. Lita, B. Calkins, L. A. Pellouchoud, A. J. Miller and S. Nam, "Superconducting Transition-Edge Sensors Optimized for High-Efficiency Photon-Number Resolving Detectors," Advanced Photon Counting Techniques IV. Proc. of SPIE Vol. 7681, 76810D. SPIE symposium on SPIE Defense, Security, and Sensing, Orlando, Florida on 5-9 April 2010.
- A.E. Lita, B. Calkins, L. A. Pellouchoud, A. J. Miller and S. Nam, "High-Efficiency Photon-Number-Resolving Detectors based on Hafnium Transition-Edge Sensors" LTD13, Stanford/SLAC, California 20-24 July 2009.