

Puneeth D. Kalavase

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EDUCATION	University Of California, Santa Barbara (UCSB)	
	Ph.D., Physics	September 2004 - February 2011
	<ul style="list-style-type: none">• Thesis Topic: <i>First Measurement of the Production Cross-section of Top Anti-Top quark pairs at $\sqrt{s} = 7$ TeV at the Large Hadron Collider</i>• Advisor: Professor Claudio Campagnari	
	University Of Pennsylvania	
	B.A., Physics and Economics	September 2000 - June 2004
	<ul style="list-style-type: none">• Minor in Math	
ADDITIONAL RELEVANT COURSEWORK	Bren School of Environmental Science And Management, UCSB	
	Completed graduate level classes on:	
	<ul style="list-style-type: none">• Environmental Modeling• Science, Policy and the Environment• Industrial Ecology• Science, Policy and Economics of Climate Change	
PROFESSIONAL EXPERIENCE	Lawrence Berkeley National Laboratory, Berkeley CA	
	<i>Environmental Energy Policy Postdoctoral Fellow</i>	September 2011 - Present
	<ul style="list-style-type: none">• Analysis of global appliance efficiency standards using bottom-up econometric forecasting tools• Support of U.S. appliance standards program	
	University Of California, Santa Barbara	
	<i>Research Scientist</i>	February 2011 - August 2011
	<ul style="list-style-type: none">• Calibration of silicon strip detector sub-systems for the CMS experiment at the LHC in Geneva, Switzerland.• Development of CMS data analysis software framework.	
	<i>Graduate Student Researcher</i>	June 2004 - February 2011
	<ul style="list-style-type: none">• Assembled, tested and commissioned Silicon Strip detector subsystems and support electronics for CMS.• Played leading role in design and implementation of analysis software framework used by collaborators at UCSB, UC San Diego and Fermi National Laboratories.• Developed methods to identify and reject photon conversion backgrounds to prompt electrons at the CMS experiment.	

- Participated in development and commissioning with early data of tools to reconstruct missing transverse energy at the CMS experiment.
- Played leading role in first measurement of the cross-section of top anti-top events at CMS and various new physics searches.
- Mentored undergraduate and younger graduate students in physics analyses.

University Of Pennsylvania

Undergraduate Student Researcher on the Sudbury Neutrino Observatory (SNO) and the ATLAS experiment at the LHC April 2003 - June 2004

- Studied high momentum cosmic muons at SNO
- Tested front end electronics for the ATLAS transition radiation detector (TRT)
- Tested and fixed electronics on site while taking detector shifts
- Advisor: [Professor Eugene W. Beier](#)

CONFERENCES • Meeting of the American Physical Society Division of Particles and Fields, Dallas, Texas - 2006. Presented *Construction and Testing of Rods for the Tracker Outer Barrel of the CMS Detector*.

TECHNICAL SKILLS • Very experienced in C++ and the ROOT data analysis framework
 • Experienced in python
 • Experienced in the Linux, Mac OS X and familiar with the Windows operating systems
 • Familiar in the MS Office and the iWork suite of programs
 • Familiar with Monte Carlo and simulation techniques
 • Familiar with electronics board debugging

OUTREACH AND VOLUNTEER EXPERIENCE • Volunteer for the [2011 Santa Barbara Summit for Energy Efficiency](#).
 • Volunteer for the *No on Prop. 23* Campaign organized by CREDO action network.
 • Presented to the Wellesley Club of Santa Barbara, *Particle Physics and the Large Hadron Collider*.
 • Interviewed by Santa Barbara Radio Station KCSB on research performed at the Large Hadron Collider.
 • Participated in the Physics Circus program at UCSB, a program to promote science education in local K-12 schools.
 • Founding member of the University of Pennsylvania Physics Club.

SELECTED PUBLICATIONS

Publications as a main author:

The CMS Collaboration, *Measurement of the Top Anti-Top production Cross Section and the Top Quark Mass in the Dilepton Channel in Proton-Proton Collisions at $\sqrt{s} = 7$ TeV*. *Journal of High Energy Physics Volume 1107, Number 49 (2011)*

The CMS Collaboration, *Search for new physics with same-sign isolated dilepton events with jets and missing transverse energy at the LHC* *Journal of High Energy Physics Volume 1106, Number 77 (2011)*

The CMS Collaboration, *First Measurement of Top-Quark Pair Production Cross Section in Proton-Proton Collisions at $\sqrt{s} = 7$ TeV*, *Physics Letters B Volume 695, Issue 5, 17 January 2011, Pages 424-443*. doi:[10.1016/j.physletb.2010.11.058](#)

The CMS Tracker Collaboration, *Performance studies of the CMS Strip Tracker before installation*, 2009 JINST 4 PO6009. doi:[10.1088/1748-0221/4/06/P06009](#)