

# Nick Hand

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D-312 Hearst Field Annex, Berkeley, CA 94720  
nhand@berkeley.edu

<b>Education</b>	<b>University of California, Berkeley</b>	Aug 2011 - present
	Ph.D. Candidate in Astrophysics	
	<b>University of California, Berkeley</b>	Aug 2013
	Master of Arts in Astrophysics	
	<b>Princeton University</b>	Sept 2007 - June 2011
	B.A. in Astrophysical Sciences	
	Certificate in Applications of Computing	

**Cumulative GPA: 3.92/4.0** (*summa cum laude*)

**Senior Thesis:**

Title: *Detection of the Thermal and Kinematic Sunyaev-Zel'dovich Effects in Halos Associated with Luminous Red Galaxies*

Advisor: David Spergel

<b>Awards &amp; Honors</b>	NSF Graduate Research Fellow	Aug 2012 - present
	Berkeley Fellow for Graduate Study	Aug 2011 - present
	Elected to Phi Beta Kappa (Princeton)	June 2011
	Elected to Society of Sigma Xi (Princeton)	June 2011
	Sigma Xi Research Book Award (Princeton Astrophysics)	June 2011
	Shapiro Prize for Academic Excellence (Princeton)	Sept 2008

**Publications** **Hand, Nick** et al., "Evidence of Galaxy Cluster Motions with the Kinematic Sunyaev-Zel'dovich Effect, *Physical Review Letters*, **109**, 041101 (2012).

**Hand, Nick** et al., "The Atacama Cosmology Telescope: Detection of Sunyaev-Zel'dovich Decrement in Groups and Clusters Associated with Luminous Red Galaxies", *ApJ*, **736**, 39 (2011).

**Presentations** [Oral Presentation] **Hand, Nick**, ACT collaboration, BOSS collaboration. *New Results from the Atacama Cosmology Telescope (ACT): The Kinematic Sunyaev-Zel'dovich Effect*. American Astronomical Society. Long Beach, CA. January 2013.

[Poster Presentation] Frazier, Sean, **Hand, Nick, Marriage, Tobias, and Menanteau, Felipe**. *The Atacama Cosmology Telescope: An SZ Cluster*

*Stacking Analysis Using Multifrequency Data.* American Astronomical Society. Washington, DC. January 2010.

**Invited Talks**     *Detection of galaxy cluster motions with data from the Atacama Cosmology Telescope and BOSS*, LBL, INPA Cosmology Seminar, March 2012.

*Detection of galaxy cluster motions with data from the Atacama Cosmology Telescope and BOSS*, Univ. of Cambridge, Cavendish Astro Seminar, May 2012.

*Detection of galaxy cluster motions with data from the Atacama Cosmology Telescope and BOSS*, UC Davis, Cosmology Seminar, June 2012.

**Teaching**     Graduate Student Instructor for Astronomy 7A, UC Berkeley with professor Eugene Chiang     Fall 2012

Graduate Student Instructor for Astronomy 7A, UC Berkeley with professor Eugene Chiang     Fall 2011

Peer tutor in Calculus I and II, physics I and II for freshmen and sophomores     2008 to 2011

**Skills**     Astronomy: Training/use of Astrophysical Research Consortium 3.5 meter telescope at Apache Point Observatory

Computer: Python, C++, C, HTML, PHP