Harvard Undergraduates Pursuing Summer Research in Astrophysics (2011)
prepared by David Charbonneau, Director of Undergraduate Studies, Astrophysics

**Tom Rice** Searching for Outflows Around Intermediate-Mass Young Stars
Clemson University, South Carolina
Program: SARA REU
Advisor: Sean Brittain

**Mariel Pettee** Baryon Acoustic Oscillations and Dark Matter/Energy
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts
Advisor: Daniel Eisenstein

**Philip Mocz** (Two Projects)
1. Cosmological growth and feedback from massive black holes
   Institute of Astronomy, University of Cambridge, United Kingdom
   Advisors: Andy Fabian and Katherine Blundell
2. Tully-Fisher Relationships for SDSS Galaxies as a Function of Environment
   Centre for Astrophysics and Supercomputing, Swinburne University, Australia
   CAS Vacation Scholarship
   Advisor: Karl Glazebrook

**Dom Pesce** Limits on the brightness of a stellar remnant in SN 1987A
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts
HCRP
Advisor: Robert Kirshner

**Amanda Nguyen** The Politics Behind NASA
NASA Headquarters, Office of Legislative strategy and Intergovernmental Affairs, Washington, DC
NASA Internship
Advisors: Lee Fink and Lisa Gibson

**Duncan Watts** Testing the Halo Occupation Distribution model for Dark Matter Clustering
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts
HCRP
Advisor: Daniel Eisenstein

**William Hawley** Heating and Chemical Enrichment in the Core of the Antlia Cluster
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts
HCRP
Advisor: Marie E. Machacek

**Marta Bryan** The Characterization of an RVS Linear Avalanche Photodiode Detector: Discrete Photon Counting Following Poisson Statistics
Institute for Astronomy, Hilo, Hawaii
NSF REU
Advisor: Don Hall

**Caroline Huang** High redshift gamma-ray burst host galaxies
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts
Harvard PRISE
Advisor: Edo Berger

Astrophysics Summer 2011 Research Pursued by Harvard Undergraduates
Thomas Esty  Planet Hunters website development, project work, and educational outreach  
Yale Astronomy Department, New Haven, Connecticut  
Advisor: Debra Fischer

Ethan Kruse  Blind Search Techniques for Gamma Ray Pulsars  
National Radio Astronomical Observatory, Charlottesville, Virginia  
NRAO REU  
Advisor: Scott Ransom

Samuel Meyer  Hierarchical Bayesian Modelling of Type Ia Supernova Light Curves  
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts  
Harvard PRISE  
Advisor: Robert Kirshner

Christopher Jensen  Modeling the Light Curves of Fast-decay Supernovae  
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts  
HCRP  
Advisor: Alicia Soderberg

David Abarca  K-corrections and Spectral Template of Type Ia Supernovae  
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts  
HCRP  
Advisor: Robert Kirshner

Kristi Bradford  Optics Construction and Testing for the Keck Array, a South Pole CMB Polarimeter  
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts  
Advisors: John Kovac and Abigail Vieregg

Kevin Fogarty  A Study of the Planck SZ-selected Sample of Galaxy Clusters in the X-ray Band  
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts  
Advisors: Christine Jones and William Forman

Diana Powell  Creation of an Observation Guide for White Dwarf Stars in the Kepler Field  
Meyer Observatory, Clifton, Texas  
Central Texas Astronomical Society (CTAS)  
Advisor: Dean Chandler

Ryan Gao  Properties of Galactic Thin and Thick Disks and Stellar Halo Derived from the Spatial Distribution of Type Ia Supernovae  
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts  
Advisor: Hagai Perets.

Scott Kaneshiro  Expanding the Datasets at the Planetarium at 'Imiloa to Incorporate Hawaiian Concepts of Space and Time  
'Imiloa Astronomy Center, Hilo, Hawaii

Marion Dierickx  Constraining the Local Group Dark Matter Distribution  
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts  
Advisor: Avi Loeb

Aisha Down  Baryonic Acoustic Oscillations  
Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts  
Harvard PRISE  
Advisor: Daniel Eisenstein