

Nicholas Steven Kern

Address:
1111 South Forest Ave
Ann Arbor, MI, 48104

nkern@umich.edu
(734) 972 - 2762
nkern.github.io

EDUCATION

University of Michigan (in progress)

Ann Arbor, MI, United States September 2010 – May 2015

B.S. Honors in Physics and B.S. Honors in Astronomy

Minor in Japanese Language

Astronomy Honors Thesis: Dynamical Mass Estimates of Stacked Galaxy Clusters

Physics Honors Thesis: Imaging the Spatial Density Within Starburst Galaxies

Ann Arbor Pioneer High School

Ann Arbor, MI, United States September 2006 – June 2010

RESEARCH EXPERIENCE

Research Assistant, Univ. Michigan Department of Astronomy

Ann Arbor, MI, United States April 2012 – Present

Advisor: Professor Christopher Miller

Dynamical properties of galaxy clusters in simulations and spectroscopic surveys

Summer Student, National Radio Astronomy Observatory

Charlottesville, VA, United States June – August, 2013

Advisor: Dr. Jeffrey Mangum

Imaging the spatial densities within starburst galaxies M82 and Arp220

PUBLICATIONS

Gifford, D., Kern, N. S., & Miller, C. J. 2014, “Stacking Caustic Masses from Galaxy Clusters” (in preparation)

Gifford, D., Miller, C. J., & Kern, N. 2013, ApJ, 773, 116, “A Systematic Analysis of Caustic Methods for Galaxy Cluster Masses”

Kern, Nicholas. “A New Class of Supergiant Stars?”. *Excellence in Upper Level Writing*. Ed. Shelley Manis and Dana Nichols. Ann Arbor: MPublishing, 2014. 19-23. Print.

AWARDS

U. S. Dept. of Education’s Foreign Language & Area Studies (FLAS) Fellow	2014
U. Michigan International Institute’s Individual Fellow	2014
U. Michigan Honors College University Honors Award	2014
U. Michigan James B. Angell Scholar Award	2014
Granader Family Upper-Level Writing Prize in Natural Science	2014
Sigma Pi Sigma Physics Honors Society Inductee	2014
National Science Foundation’s REU Recipient	2013
Big Ten Distinguished Scholar Award	2013
Michigan Scholar Athlete Award	2011, 2012, 2013
Varsity Cross Country Team Captain	2012
Academic All Big Ten Award	2012
U. Michigan Honors College Sophomore Honors Award	2012

OTHER ACTIVITIES

Intensive Language Student, Hokkaido International Foundation, Hakodate, Japan	2014
Observer, MDM Observatory, Kitt Peak National Observatory, Tucson, AZ	2014
Co-Investigator, “Measuring the Mass Dependence of Galaxy Clustering”, MDM Obs.	2014
Summer Student, National Radio Astronomy Observatory, Charlottesville, VA	2013
Open House Guest Speaker and Volunteer, McCormick Observatory, Charlottesville, VA	2013
Member, U. Michigan Varsity Cross Country, Track & Field, Ann Arbor, MI	2010 – 2013

PROFESSIONAL AFFILIATIONS

Member, Sigma Pi Sigma Physics Honors Society
Member, Student Astronomical Society
Member, Society of Physics Students

PROFESSIONAL MEETINGS

223rd American Astronomical Society Meeting, Washington, D.C.	2014
Presented: “Imaging the Spatial Density within Starburst Galaxies M82 and Arp220”	
Cyber Infrastructure Days, Ann Arbor, MI	2013
Presented: “Cluster Stacking: Improving Precision and Accuracy in Galaxy Cluster Mass Estimation Techniques”	
First La Serena School For Data Science, La Serena, Chile	2013

SKILLS

- Programming experience with Python, SQL, CASA, Bash, IDL
- Proficient with OS-X, Linux and Windows operating systems
- Experience with High Performance Computing
- High proficiency in written and spoken Japanese

REFERENCES**Christopher Miller**

Department of Astronomy
University of Michigan
500 Church St.
830 Dennison Building
Ann Arbor, MI 48108
Phone: (734) 764-3433
e-mail: christoq@umich.edu

Jeffrey Mangum

North American ALMA Science Center
National Radio Astronomy Observatory
520 Edgemont Road
Charlottesville, VA 22903
Phone: (434) 296-0347
e-mail: jmangum@nrao.edu

Nuria Calvet

Department of Astronomy
University of Michigan
500 Church St.
830 Dennison Building

Ann Arbor, MI 48108
Phone: (734) 764-3440
e-mail: ncalvet@umich.edu