Imad Pasha

Curriculum Vitæ (September 12, 2016)

Address Department of Astronomy, University of California, Berkeley

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EDUCATION

B.A. Physics, Astrophysics, Minor Creative Writing -in progress

2013-2018

University of California, Berkeley Research Adviser: Mariska Kriek

GPA: 3.73

Diploma 2009-2013

Rancho Bernardo High School

GPA: 4.34

POSITIONS HELD

SAO Research Intern [NSF REU]

2016-2017

HARVARD-SMITHSONIAN CENTER FOR ASTROPHYSICS — adv. Dr. Reinout van Weeren

Participated in the SAO-REU internship at the Harvard-Smithsonian Center for Astrophysics. Worked with Reinout van Weeren on a project identifying and characterizing gravitationally lensed AGN behind massive clusters of galaxies. Continued working on the project after the end of the program. *Coordinators: Jonathan McDowell, Matthew Ashby.*

Undergraduate GSI (T.A.)

2016-2017

Astronomy 120 — instr. Gaspard Duchene

Served as the UGSI (undergraduate graduate student instructor) for the upper division infrared and optical laboratory in the Astronomy department. Responsibilities included developing and presenting various lectures [Python, LATEX, telescope operation], aiding in the determination of course content, class organization and logistics, and holding office hours.

Course Instructor 2015-

Astronomy 98/198 — Introductory Python for Astronomers

Wrote/developed and co-instructed the Astronomy Department's introductory python course with Chris Agostino. The course is designed to introduce majors to the astronomical applications of python, from spectral analysis to imaging and data I/O. Also covers the basics of UNIX systems, IATEX, and HTML. Our textbook and exercises can be found under "non-refereed publications."

Telescope Operator / UGSI

2015-

Astronomy C10 — instr. Alex Filippenko & Leo Blitz

Hired to operate the rooftop, 17" Treffers telescope owned by the Astronomy Department. Held weekly or multi-weekly viewing sessions for students of the introductory astronomy classes as well as for donor events and public outreach events.

Undergraduate Researcher

2014-

University of California, Berkeley — adv. Dr. Mariska Kriek

Worked in the Astronomy Department as an undergraduate researcher under Dr. Mariska Kriek. Research involved creating composite spectral energy distributions (SED) of galaxies and running MCMC fits using flexible stellar population synthesis models.

URCA Research Intern [NSF REU]

2014

NORTH CAROLINA STATE UNIVERSITY — adv. Dr. John Blondin

Participated NCSU URCA (Undergraduate Research in Computational Astrophysics) program. Worked with Dr. John Blondin on creating and running a three-dimensional hydrodynamics simulation of the SNR Cassiopeia A, run on the TACC Stampede supercomputer.

REFEREED PUBLICATIONS

1. Shivaei, I.; Kriek, M.; Reddy, N. A.; Shapley, A. E.; Barro, G.; Conroy, C.; Coil, A. L.; Freeman, W. R.; Mobasher, B.; Siana, B.; Sanders, R.; Price, S. H.; Azadi, M.; Pasha, I.; Inami, H., "The MOSDEF Survey: The Strong Agreement between $H\alpha$ and UV-to-FIR Star Formation Rates for $z \sim 2$ Star-forming Galaxies", The Astrophysical Journal Letters 820, (2016).

NON-REFEREED PUBLICATIONS

- 1. M.L. Graham, G. Halevi, <u>I. Pasha</u>, I. Shivvers, H. Yuk, A.V. Filippenko (UC Berkeley), "Classification of PSN J09254453+3416361 as a Type II Supernova", *Astronomers Telegram* **ATel 8169**, (2016).
- 2. <u>Imad Pasha</u> & Christopher Agostino, "Python for Astronomers: An Introduction to Scientific Computing", Publicly Available, (2016).

NON-ACADEMIC POSITIONS AND OUTREACH

Founding Signatory and Organizing Committee Member

2015-

Undergraduate Astronomy Society

Co-founded the Undergraduate Astronomy Society at Berkeley (UAS), an organization dedicated to increasing community among the undergraduate majors, provide department and external resources, facilitate collaboration and social interaction between students, graduate students, postdocs, and faculty, and serve as an interface to bring student interests and concerns to the department in a collective way. Worked closely on various aspects of the organization, from organizing social events to organizing talks from industry or academic visitors.

Founding Signatory and Board Member

2014-2015

SPACE EXPLORATION SOCIETY AT BERKELEY

Helped create the Space Exploration Society at Berkeley (SESB), serving as a signatory and executive board member as well as historian. Coordinated with the other board members to establish the scope and direction of the organization.

Organizing Member

2015-

UC BERKELEY ASTRONOMY NIGHTS

Helped organize and run public astronomy nights in the department, consisting of an hour long talk by a professor, followed by a public stargazing event on the roof of the department. Involved with running the telescope, collaborating with speakers, as well as organization and logistics.

CONFERENCES AND TALKS

- 2017 Gravitationally Lensed AGN in the CLASH Sample [Poster], Annual AAS Conference (abstract submitted).
- 2016 Gravitationally Lensed AGN in the CLASH Sample [Talk], Harvard-CfA Research Symposium
- 2016 Fitting Composite Galaxy SEDs with MCMC and Stellar Population Synthesis Models [Talk], UC Berkeley Astronomy Department Research Symposium
- 2015 **Jet Morphology in Cassiopeia A [Poster]**, Biennial Fifty-one Ergs Supernova Conference
- 2014 Jet Morphology in Cassiopeia A [Poster], Annual UNC Undergraduate Research Symposium
- 2014 **Jet Morphology in Cassiopeia A [Poster**], Annual NC State Undergraduate Research Symposium

AWARDS

- 2015 Third Place Poster Prize, Biennial Fifty-one Ergs Supernova Conference
- 2014 First Place Poster Prize, Annual UNC Undergraduate Research Symposium