

Conor O'Neill

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EDUCATION

THE UNIVERSITY OF QUEENSLAND

BACHELOR OF SCIENCE (HONS)

Physics extended major

Received Dec 2014 | Australia

Cum. GPA: 6.33/7.00

Thesis Title (shortened):

– Cosmological Investigations

Study Abroad: UC Berkeley

Advanced Studies Program in Science

Dean's List × 4

LINKS

LinkedIn:// [conoroneill1](#)

Github:// [conor-oneill](#)

SKILLS

COMPUTATIONAL

Programming

★ Python • R • Matlab • Git

SQL/mysql • C++ • Fortran

MS Office suite (incl. Excel)

Shell – bash, t/csh, terminal tools

Mathematica • L^AT_EX • SVN

IDL • IRAF/PyRAF/cl script

Operating Systems

Linux (CentOS, Mint)

Mac OS X

Microsoft Windows 95 through 8

COMMUNICATION

3 University speaking awards

7 Astrophysics talks to specialist audiences in 3 countries

9 Talks to the public or non-specialist audiences

4 Astrophysics conferences, retreats, or schools

8 Non-astrophysics conferences, forums, or summits

400+ University students taught in 20 classes in 5 STEM subjects & Excellence in Tutoring award

LANGUAGES

Native: English

Novice: Spanish, German

CITIZENSHIPS

Australia | Ireland (E.U. Member)

EXPERIENCE AND RESEARCH

GEMINI OBSERVATORY (NORTH) | RESEARCH INTERN

May 2015 – Sep 2015 | Hilo, HI, USA

- Detected, analysed, and derived properties of galaxies in very distant galaxy supercluster, resulting in over 1,200 publication-ready galaxies.

GEMINI OBSERVATORY (SOUTH) | AGUSS RESEARCH FELLOW

Dec 2014 – Feb 2015 | La Serena, Chile

- 1 of 2 undergraduates (1 female, 1 male) selected nation-wide for prestigious AGUSS fellowship at world-class 8-meter telescope in Chile.
- Created largest & highest quality dataset in existence of GCs in Coma cluster.
- Scientifically analysed results and currently preparing a paper for publication.

THE UNIVERSITY OF QUEENSLAND | UNDERGRAD RESEARCHER

Feb 2013 – Jul 2015 | St. Lucia, QLD, Australia

- OzDES dark energy survey. Large collaboration and dataset ($n \sim 10,000$).
- Chief Redshift Whip – organised collab-wide effort to measure parameter (redshift) in data. Conducted quality control, cleaning of data, and analysis.
- Created varied strategy models and predicted expected future outcomes.
- Determined optimum strategy and recommended to collaboration.
- Co-authorship on three publications in peer-reviewed scientific journals (one, two, three) and one ATEL publication (one).

LAWRENCE BERKELEY NATIONAL LAB | UNDERGRAD RESEARCHER

Aug 2012 – Feb 2013 | Berkeley, CA, USA

- Developed software to extract and reduce online astrophysical data.
- Evaluated data, assembled list of desired targets for follow-up observation.
- Analysed results using specialist software and classified supernova spectra.
- Two supernova confirmations and two ATEL publications (one, two).

THE UNIVERSITY OF QUEENSLAND | SUMMER RESEARCH SCHOLAR

Nov 2011 – Mar 2012 | St. Lucia, QLD, Australia

- Queried, extracted, cleaned, analysed, compared, interpreted data on galaxies from two different astrophysical surveys ($n \sim 133,000 \rightarrow 17,000 \rightarrow 600$).
- Used artificial neural networks to improve upon results of the prediction survey.

AWARDS AND RECOGNITIONS

- 2014** UQ Future Leader – Class of 2014 (graduating honours degree)
Australian Gemini Undergraduate Summer Studentship (AGUSS)
UQ Advantage Award
- 2013** UQ Future Leader – Class of 2013 (graduating bachelor's degree)
- 2012** UC Berkeley Scholarship awarded by Australian Government D.E.E.W.R.
- 2011** UQ Summer Research Scholarship

LEADERSHIP AND MENTORING ROLES

- 2015** CAASTRO Astronomer in Residence at Uluru (public outreach)
- 2014** Chief Redshift Whip in dark energy survey OzDES (~ 60 members, 5 countries)
UQ Student Summit representative
National Student Leadership Forum in Canberra, delegate representing UQ
- 2013** Faculty of Science mentor
- 2012** Advanced Study Program in Science (ASPinS) mentor