

Jacob Buete

Curriculum Vitae

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Education

Bachelor of Science (Advanced) (Honours), *The Australian National University*, Canberra, ACT, HD-average. **2013–2016**

- Major: Theoretical Physics
- Specialisation: Advanced Physics
- Minor: Mathematics
- Honours: Astronomy and Astrophysics (graduating in December 2016)

Honours Thesis

Title: *A Realistic Sub-grid Supernovae Implementation for Exploring Supernova Driven Turbulence*

Supervisor: Dr Christoph Federrath

Description: Implemented an analytical supernova model in a FORTRAN-based hydrodynamics codebase that employs adaptive mesh refinement, FLASH. (jbuete.com/honours)

Experience

IT Assistant, *Bruce Hall*, Canberra. **2016**

Worked as part of the student IT team at Bruce Hall.

Job Details:

- Worked as a liason for Bruce Hall and ANU IT services;
- Fixed technology-related issues encountered by students and Bruce Hall admin;
- Ran Bruce Hall's internal website, including:
 - Writing Python scripts to update MySQL database of student information;
 - Created video series to teach student leadership team how to create and format articles on the site.

Open Source Projects

FlashPy.

FlashPy is a Python module designed to interface with the HDF5 output files produced by FLASH simulations. The module provides automated analysis and visualisation tools for use in research. (github.com/JBuete/FlashPy)

Languages

Highly Experienced: Python, FORTRAN

Moderately Experienced: C, Java

Some Experience: Javascript, Haskell