

DR. TOBY BROWN

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Department of Physics & Astronomy, McMaster University, Hamilton, Canada

EMPLOYMENT

Post Doctoral Fellow, Astrophysics

October 2017 - present

McMaster University

Hamilton, Canada

- Devising, leading and completing successful scientific research projects
- Supervising PhD and undergraduate students in astrophysics and data science
- Speaking at international conferences, research institutions and public lectures
- Successfully pursuing funding, managing research budgets and resources
- Collaborating with experts to form productive research partnerships
- Advanced data science and software development (primarily Python)
- 9 publications in world-leading academic journals

EDUCATION

Business Administration with Management

May 2018 - Present

McMaster University CCE

Hamilton, Canada

- Continued education to ensure a strong foundation in business competencies, including finance, operations and general management
- Key modules: Business Foundations, Business Strategy, Organizational Behaviour

Doctor of Philosophy (Ph.D.), Astrophysics

October 2013 - August 2017

Swinburne University of Technology

Melbourne, Australia

- Awarded a competitive stipend of ~\$280,000 AUD to fund my research
- Leading long-term, collaborative research projects in astrophysics
- Thesis nominated for the International Astronomical Union's best PhD prize
- Taught undergraduate Quantum Mechanics and Electromagnetism classes
- Split PhD with final 2 years at the University of Western Australia

Astrophysics MPhys, Hons

September 2009 - June 2013

University of Liverpool & Liverpool John Moores University

Liverpool, UK

- Received an Upper Second Class (2:1)
- Science Editor at Liverpool Student Media, coordinating a team of student journalists

LEADERSHIP AND VOLUNTARY ROLES

Field Director

2018 - present

Municipal Council Election Campaign

Hamilton

- Developing and delivering campaign messaging through voter contact
- Leading foot, phone and digital platform canvassing strategies
- Managing campaign's data analytics

PhD Supervisor

2017 - present

*Dept. Physics & Astronomy, & MacDATA Centre**McMaster University*

- Primary supervisor of McMaster's MacDATA Graduate (PhD level) Fellow
- Won a grant to pay for my student's 8 month astronomy-data science collaboration

Senior Field Organiser

2018

*Ontario New Democratic Party**Hamilton Centre*

- Organised teams of foot canvassers for ONDP leader, Andrea Horwath's successful re-election campaign.
- Managed the campaign's *get out the vote* phase and data analytics, reporting directly to the Campaign Manager to inform strategic decision making

Steering Committee Member

2016 - 2017

*Early Career Researcher Chapter**Astronomical Society of Australia*

- Oversaw and reviewed policies for the Astronomical Society of Australia chapter
- Advocated for and represented early career astronomers in Australia

Undergraduate Supervisor

2014 - 2017

*Swinburne University & McMaster University**Melbourne & Hamilton*

- Supervised astrophysics project-based learning for eight McMaster students
- Supervised four Swinburne University animation student projects

PUBLIC SPEAKING AND COMMUNICATION

Award-winning public talks

2016 - present

- Speaking to audiences of 700+, including the March for Science, the British Council's Famelab Australia Final, British live event series Cosmic Shambles

Media coverage

2016 - present

- Providing comment on STEM issues for local and national media, including The Conversation, ABC Radio National, ABC 720 Perth, ABC Melbourne

Media commentary

2016 - present

- Stories on my research have been featured in Scientific American, News.com.au, The Daily Telegraph, Space.com, Gizmodo, IFL Science, among others