

## Rajika Kuruwita

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CONTACT INFORMATION	Research School of Astronomy and Astrophysics Australian National University Canberra, NSW, 2611, Australia <i>Website:</i> <a href="http://rsaa.anu.edu.au/people/rajika-kuruwita">http://rsaa.anu.edu.au/people/rajika-kuruwita</a>	<i>Tel:</i> +61 02 9850 7111 <i>E-mail:</i> <a href="mailto:rajika.kuruwita@anu.edu.au">rajika.kuruwita@anu.edu.au</a>
RESEARCH INTERESTS	Star formation, binary stars, planets in binary star systems, hydrodynamic simulations, software development.	
EDUCATION	<b>Australian National University</b> , Canberra, ACT, Australia	<b>February, 2015 - present</b>
	PhD <ul style="list-style-type: none"><li>• Thesis Topic: “Binary star formation, their outflows and implications on planet formation”</li><li>• Primary Supervisor: Dr Christoph Federrath</li><li>• Secondary Supervisor: Associate Professor Michael Ireland</li></ul>	
	<b>Macquarie University</b> , North Ryde, Australia	<b>February, 2010 - January, 2015</b>
	MRes. Physics and Astronomy <ul style="list-style-type: none"><li>• Thesis Topic: “Fallback Disks and the End of the Common Envelope Phase”</li><li>• Primary Supervisor: Associate Professor Orsola De Marco</li><li>• Secondary Supervisor: Dr Jan Staff</li></ul>	
	BSc. Astronomy and Astrophysics	
WORK AND ACADEMIC EXPERIENCE	<b>Macquarie University</b> , North Ryde, Australia	
	<i>Graduate Student</i>	<b>January, 2013 - November, 2014</b>
	Masters research using hydrodynamic code and creating scripts for analysis of simulations.	
	<i>Laboratory Demonstrator</i>	<b>February, 2013 - November, 2014</b>
	Involves teaching experiments, supervising undergraduate students and marking lab books.	
	<i>Observatory and Planetarium Supervisor</i>	<b>February, 2010 - January, 2015</b>
	Duties included coordinating groups, creating tours and presentations, public speaking, fast learner, opening and closing observatory and planetarium.	
	<i>Vacation Scholarship Researcher</i>	<b>January, 2012 - February, 2012</b>
	Summer Vacation Research Scholarship carrying out research on nanowires. Included use of white light interferometry, presentations, report writing, data organisation.	
	<i>Vacation Scholarship Researcher</i>	<b>December, 2012 - February, 2013</b>
	Summer Vacation Research Scholarship simulating light curves to understand the influence of exoplanets on the asteroseismological pulsation spectrum of stars. Included programming and group collaborations.	
PUBLICATIONS	<ul style="list-style-type: none"><li>• Kuruwita et al., <i>Considerations on the Role of Fall-Back Discs in the Final Stages of the Common Envelope Binary Interaction</i>, 2016, Accepted to MNRAS</li></ul>	

- Green et al., *Testing the Binary Trigger Hypothesis in FUors*, 2016, Submitted to ApJ  
<http://arxiv.org/abs/1605.03270>
- Little et al., *Phase-stepping interferometry of GaAs nanowires: Determining nano-wire radius*, 2013, Appl. Phys. Lett., 103, 161107

#### COMPUTER SKILLS

- Computing Languages: Python, Java, Processing, some knowledge of Fortran and html
- Applications: L<sup>A</sup>T<sub>E</sub>X, yt, simulating light-curves, analysis of hdf5 files from hydrodynamic simulations, reducing observational data in fits files.
- Operating Systems: Unix/Linux, Windows and Mac.

#### OTHER EXPERIENCE

- Staff Liaison for the Macquarie University Physics and Astronomy Society, 2014. Included organising talks from post graduates and staff for students, booking venues for astronomical and social events.
- On the Science Organising Committee for the 2016 Harley Wood Winter School.
- On the Organising Committee for the 2016 Mt Stromlo Student Seminars
- On the Local Organising Committee for the 2017 Harley Wood Winter School
- Languages: English (*native*), Portuguese (*beginner - intermediate*), Sinhalese (*basic*)

#### REFeree DETAILS

- Associate Professor Orsola De Marco, Department of Physics and Astronomy, Macquarie University, Sydney NSW 2109, Australia. tel: +61 2 9850 4241 , email: orsola.demarco@mq.edu.au
- Dr Michael Ireland, Research School of Astronomy and Astrophysics, Australian National University, Research School of Astronomy & Astrophysics, Mount Stromlo Observatory, Cotter Road, Weston Creek, ACT 2611, Australia. tel: +61 2 6125 0288, email: michael.ireland@anu.edu.au
- Professor Deb Kane, Department of Physics and Astronomy, Macquarie University, Sydney NSW 2109, Australia. +61 2 9850 8907, email: debkane@physics.mq.edu.au