



# President's Report 2017

## Australasian Society for General Relativity and Gravitation

### Highlights 2015-2017

It has been a remarkable two years for not only the international society but also for our local society. Though I would love to begin by highlighting our own people first, I can hardly not start with the most significant event over the past 100 years of General Relativity – the first detection of gravitational waves in September 2015.

#### Detection of gravitational waves

On Sep 14, 2015 LIGO created history with the first detection of gravitational waves. This was a momentous occasion that has ushered in a new era of gravitational wave astronomy. Since that first detection at least four other events have been recorded. It came as no surprise that the 2017 Noble Prize for Physics was awarded to Barry Barish and Kip Thorne of Caltech and Rainer Weiss of MIT. But we should also acknowledge the significant contributions made by members of our own society, including David Blair, David McClelland, Peter Veitch and many many others.

The committee agreed that it would be appropriate, on behalf of our society, to send a short letter of congratulations to the LIGO team. Here is the text of that letter.

*Dear LIGO team,*

*On behalf of the Australasian Society for General Relativity and Gravitation I would like to offer our congratulations to the LIGO team for their detection of gravitational waves.*

*Your tireless work and exceptional dedication in pursuing this most elusive prediction of Einstein will surely be remembered as one of the most outstanding achievements in the past 100 years of modern physics. The technical developments made and the wealth of data that will flow from your success will inspire a whole new generation of relativists and a new era in gravitational wave astronomy.*

*Best wishes,*

*Leo Brewin President, Australasian Society for General Relativity and Gravitation*

#### Australian Academy of Science

Hearty congratulations to Susan Scott who, in 2016, was elected to the Australian Academy of Science. Sue was the driving force behind the formation of our society and has made fundamental contributions to general relativity throughout her professional career. The citation from the Academy reads, in part, "Susan Scott has made ground-breaking discoveries in the fields of general relativity and gravitational wave science." Well done Sue!!!

## **OzGrav Centre of Excellence**

The ARC announced in Sep 2016 that it will fund a *Centre of Excellence for Gravitational Wave Discovery*, to the tune of \$31M over a 7 year period. The CoE will be hosted by Swinburne University of Technology with Prof. Matthew Bailes as the director. Though based at Swinburne, the CoE is truly an international facility with a further 7 Australian partners and 9 international partners.

This is a wonderful development for General Relativity in Australia and is testament to the vision, patience and dedicated commitment of the team (including Matthew Bailes, David McClelland, David Blair, Eric Thrane, Susan Scott) in pursuit of this great result.

## **Events**

### **AIP Council 2016 and 2017**

I represented ASGRG at the Australian Institute of Physics council meeting (9-10 Feb 2016 Swinburne University and 2-3 Feb 2017 University of Melbourne). Our society is recognised by the AIP as a *cognate* society. This means that the AIP and ASGRG are independent societies that agree to cross promote each others interests (and to offer discounts for membership and conference fees). This is a mutually beneficial arrangement. My time in these meetings was mainly as a witness to their deliberations though I was always given the courtesy of making a short comment about the activities of the ASGRG.

### **AIP Congress 2016**

This was held at the Brisbane Convention Centre over 4-8 Dec 2016. One parallel session was devoted to general relativity and there were a total of approximately 15 talks. Unfortunately only about 5 of the speakers were ASGRG members (as best as I could tell). These numbers are not good (we had similar numbers in the previous congress). Given that the AIP is funding this session and paying for the expenses for a plenary speaker for us (this time it was David Reitz) we should be doing our very best to wave the flag for the ASGRG. I did give a brief advert for our society at the start of my talk but alas that did not translate into any new members.

### **AIP Congress 2018**

The next AIP congress will run from 9th to 14th Dec 2018 and will be hosted by the University of Western Australia, Perth (see [aip2018.org.au](http://aip2018.org.au)). I would very much like to see a strong contingent from our society at that conference. We have ample time to get our talks ready. Let's make this a big show.

### **New committee 2017**

At this BGM I will be standing down as is required by our constitution. I am fully confident that the new committee will do a wonderfully job in promoting the best interests of General Relativity in Australia and New Zealand while also managing the affairs of the society. I have had a great time being part of a great committee and I wish the incoming committee all the best. I would also like to thank David Wiltshire in particular for his sound advice during the past 4 years.



Leo Brewin  
President  
ASGRG

27-Nov-2017