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## 国台学术报告 NAOC COLLOQUIUM

2017年第27次/No.27 2017

Time: Wed. 2:30 PM, Oct. 11th Location: A601 NAOC

## **Pulsar Astronomy with Parkes**

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Dr George Hobbs got his PhD from Jodrell Bank Observatory of University of Manchester, UK. After his PhD, he had a three-year research position at the Australia Telescope National Facility (ATNF) in Sydney, Australia; then he had further three-year position at the ATNF working with Dr. R. Manchester who had obtained an extremely prestigious Federation Fellowship grant to develop the Parkes Pulsar Timing Array Project. Now, he is working as lead of the Parkes Pulsar Timing Array project and the science team relating to the Parkes observatory in CSIRO Astronomy and Space Science of Australia.

## **Abstract**

The study of pulsars remains an active area of research in Australia, in particular with the Parkes telescope. I will provide a short history of pulsar research and then describe in more detail on-going pulsar research. I will highlight the Parkes Pulsar Timing Array project in which we are hunting for ultra-low-frequency gravitational waves, measuring planetary masses and developing a pulsar-based timescale. I will also describe recent pulsar and fast-radio-burst searches. The Parkes telescope is currently being upgraded with an ultra-wide-band receiver system. I'll describe the early results from this new receiver and highlight the science cases that will be carried out when it is finally commissioned. I will conclude by discussing synergies between the Australian and other telescopes Worldwide, including the FAST telescope.