

Fast Radio Bursts: The Story So Far

Abstract:

Fast radio bursts are anomalously dispersed millisecond-duration pulses of unknown origin that were discovered by pulsar astronomers in 2007. Almost a decade on from the discovery, with only a dozen examples currently known, fast radio bursts remain enigmatic sources which parallel the early days of gamma-ray burst astronomy in the early 1970s. I will describe the science opportunities these phenomena present, and discuss the challenges and opportunities presented in their discovery.

Bio sketch:

Duncan Lorimer got his PhD in 1994 for his contributions to Pulsar Astronomy from the University of Manchester in the UK working under the supervision of Prof. Andrew Lyne, Dick Manchester and Matthew Bailes. Since then he has held positions at the University of Manchester (Lecturer; 1994-5); the Max-Planck-Institute for Radio Astronomy (Postdoctoral Fellow; 1995-8); Cornell University (Postdoctoral Fellow; 1998-2001); University of Manchester (Royal Society Research Fellow; 2001-6) and West Virginia University (Faculty; 2006-present). He is a Fellow of the Royal Astronomical Society since 1994. While at West Virginia University, he has received a Cottrell Scholarship (2008-present) from the Research Corporation for Scientific Advancement and has received both his College and University recognition for excellence in teaching (2009, 2010). He is currently associate Chair of the Department of Physics and Astronomy. Among his notable research achievements are contributions to our understanding of the population of pulsars in our Milky Way and the discovery of Fast Radio Bursts which he will describe in this talk.

