



**Irfu**  
Institut de recherche  
sur les lois fondamentales  
de l'Univers

**Séminaire  
DPhP**

**Lundi 25/03/2019, 11h00**

CEA-Saclay Bât. 141, salle André Berthelot

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## **The Past, Present and Future of Fast Radio Burst Science**

**EVAN KEANE**

Square Kilometre Array Organisation, Jodrell Bank Observatory

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I will overview the winding obstacle-strewn road of discoveries and adventures that fast radio burst (FRB) science has taken since the first discovery in 2007. Many mistakes, as well as key insights and discoveries have been made on this journey. At present, many astrophysical and cosmological applications of FRBs have been identified, significant progress is being made into identifying what their progenitors are and are not, and discovery rates continue to accelerate. But where next for FRB science? A huge number of unknowns remain and the field is full of open questions. Here I will summarise the science questions that can be addressed by instruments such as ASKAP and CHIME which have a large and growing haul of bright and/or nearby FRB detections. Separately I will consider the complementary work that can be done with a smaller crop of much higher redshift FRBs as can be detected by instruments such as Parkes and MeerKAT. In as much as forecasting FRB science is possible, I will finish by proposing several strategies for maximising the scientific output of FRB science in the next decade.

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Le café sera servi 10 minutes avant.

NB : La présentation d'une pièce d'identité est exigée à l'entrée du centre. Tous les auditeurs extérieurs sont priés de prévenir à l'avance Martine Oger, tél. 01 69 08 23 50, e-mail : [martine.oger@cea.fr](mailto:martine.oger@cea.fr). (délai de 7 jours).