

*RAS Specialist Discussion Meeting  
2010 January 8<sup>th</sup>*

*Geological Society Lecture Theatre,  
Burlington House, Piccadilly*



## **The X-Ray Astronomy Revolution: The Ongoing Impact of XMM-Newton and Chandra**

Observations in the X-ray band provide a unique view of cosmic high energy processes and key constraints on phenomena which cannot be probed through other techniques. In 10 years of operation, the XMM-Newton and Chandra observatories have revolutionised our knowledge of the Universe at X-ray wavelengths, challenging previous paradigms and providing major advances in our understanding of the physics and evolution of X-ray sources. This RAS discussion meeting will highlight some of the major contributions made by XMM-Newton and Chandra to key questions in astrophysics and cosmology.

### **Programme**

10.30-11.00	Andy Fabian (Institute of Astronomy, Cambridge)	Ten Years of XMM-Newton and Chandra
11.00-11.30	Chris Done (University of Durham)	What Chandra and XMM reveal about black hole accretion flows
11.30-12.00	Ken Pounds (University of Leicester)	AGN outflows and their interaction with the host galaxy
12.00-12.30	Jeremy Drake (Harvard-Smithsonian Center for Astrophysics)	Taciturn, loquacious, delinquent: The X-ray behaviour of stars
12.30-13.00	Jacco Vink (Astronomical Institute, University of Utrecht)	From abundance studies to cosmic ray physics: the impact of X-ray imaging spectroscopy on our knowledge of supernova remnants

### **LUNCH BREAK**

14.00-14.30	Roberto Soria (MSSL/UCL)	Non-nuclear X-ray sources in galaxies
14.30-15.00	Trevor Ponman (University of Birmingham)	Hot baryons in clusters
15.00-15.30	Niel Brandt (Penn State University)	A Decade of Extragalactic Surveys with Chandra and XMM-Newton: The Demography, Physics, and Ecology of Growing Supermassive Black Holes

*Organisers: Mike Watson, Dave Alexander & Mat Page*