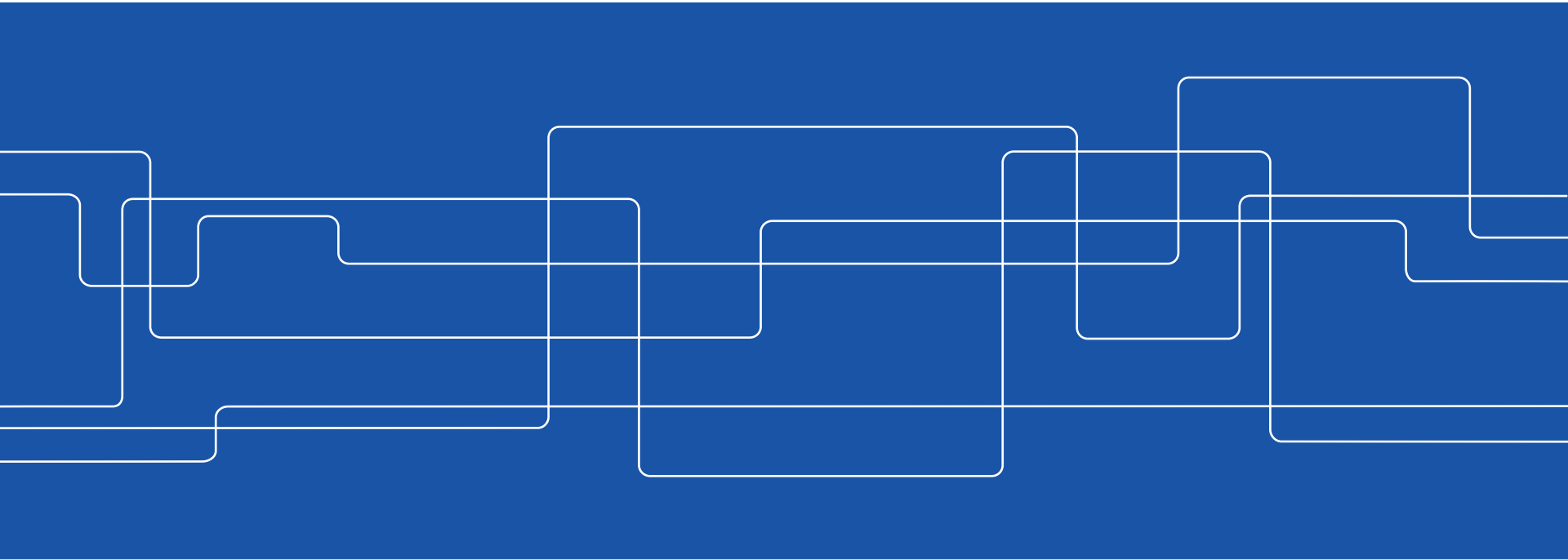




Exploring the high energy universe with satellites and balloons

Mark Pearce

Association of Space Explorers, XXVIII Planetary Congress





Scientific questions addressed by the KTH astroparticle physics research group

Study extreme objects/processes in the universe through the high energy radiation which they emit



Gamma-ray bursts



Pulsars



Black holes



Dark matter

We develop instruments which fly on satellites and stratospheric balloons



PAMELA, 2006-
Cosmic antimatter

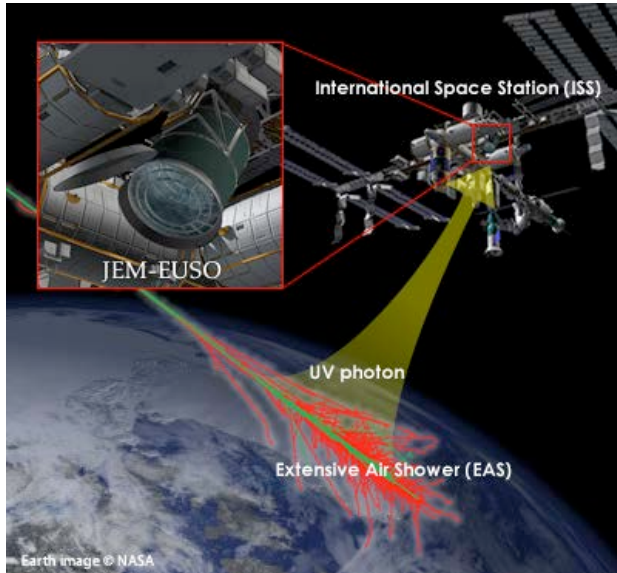


Fermi, 2008-
Gamma-rays



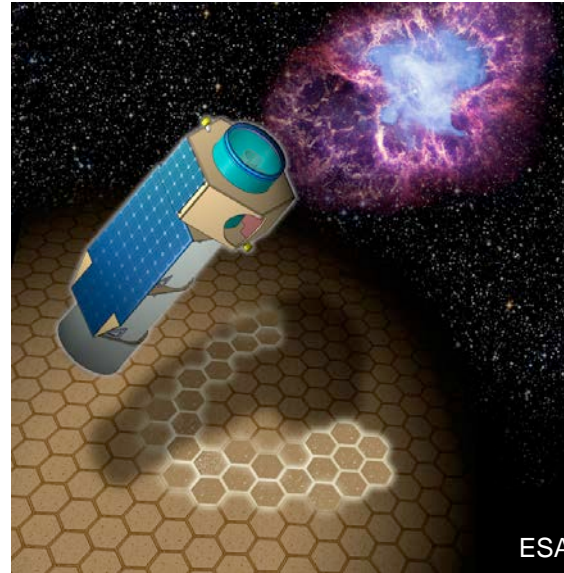
PoGO Lite, 2013-
Polarised X-rays

New tools for new discoveries



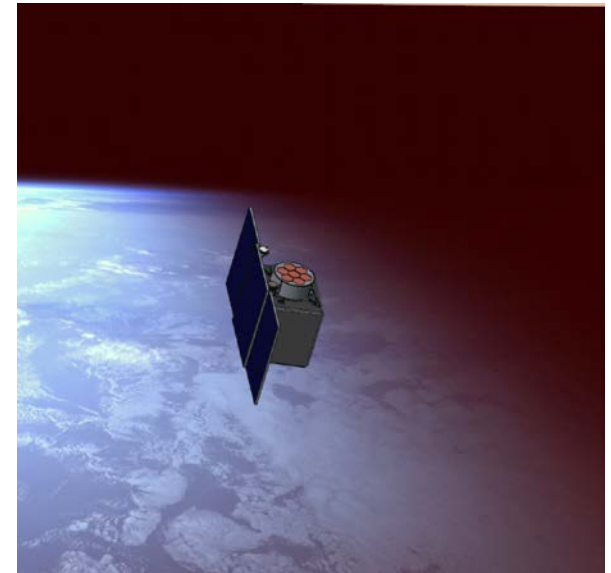
JEM-EUSO

Ultra high-energy cosmic-rays



XIPE

Polarised X-rays



SPHiNX