



X-RAY ASTRONOMY 2019

Current Challenges and New Frontiers in the Next Decade

8-13 September 2019
CNR/INAF Research Area, Bologna, Italy

Contribution ID: 315

Type: **Solicited**

Athena: the Advanced Telescope for High Energy Astrophysics

Friday, 13 September 2019 09:00 (20 minutes)

Athena (The Advanced Telescope for High Energy Astrophysics) is a next-generation X-ray observatory to address the Hot and Energetic Universe science theme, selected by ESA as the second large mission of the Cosmic Vision program. The driving science of the mission is to understand the formation and evolution of hot gas structures in the Universe, and the growth and evolution of supermassive black holes. Athena consists of a single, large-aperture X-ray telescope based on Silicon Pore Optics (SPO) technology, which can be focussed onto one of two instruments. The X-ray Integral Field Unit (X-IFU), based on TES calorimeter technology, is a cryogenic instrument offering spatially resolved high resolution spectroscopy. The Wide Field Imager (WFI) features a large field of view with moderate resolution spectroscopy and high count rate capability, using Silicon DEPFET sensors. Athena is nearing the end of Phase A, with conceptual design work ongoing along with a vigorous technology development program. In this talk the science drivers of the mission will be briefly reviewed, along with the project status.

Topic

Future missions

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Session Classification: FUTURE MISSIONS