

IAF SYMPOSIUM ON FUTURE SPACE ASTRONOMY AND SOLAR-SYSTEM SCIENCE MISSIONS
(A7)

Space Agency Strategies and Plans (1)

Author: Dr. Eric Wille
ESA, The Netherlands, eric.wille@esa.int

Dr. Marcos Bavdaz
European Space Agency (ESA), The Netherlands, marcos.bavdaz@esa.int

Dr. Mark Ayre
ESA, The Netherlands, mark.ayre@esa.int

Dr. Ivo Ferreira
ESA, The Netherlands, ivo.ferreira@esa.int

Dr. SEBASTIAAN FRANSEN
European Space Agency (ESA), The Netherlands, Sebastiaan.Fransen@esa.int

THE ATHENA X-RAY TELESCOPE AND ITS TECHNICAL CHALLENGES

Abstract

Athena (Advanced Telescope for High Energy Astrophysics) has been selected as ESA's second large class mission of the Cosmic Vision science programme. Phase-A studies are currently performed to define the design baseline for the mission and critical technologies are being developed in parallel.

This paper will present the current design baseline and technology status of critical elements, especially for the x-ray mirror. Achieving a high angular resolution and large effective area is of utmost importance to maximize the scientific value of the mission. Progress on optimizing the optics manufacturing and the telescope design in order to meet the Athena requirements is presented.