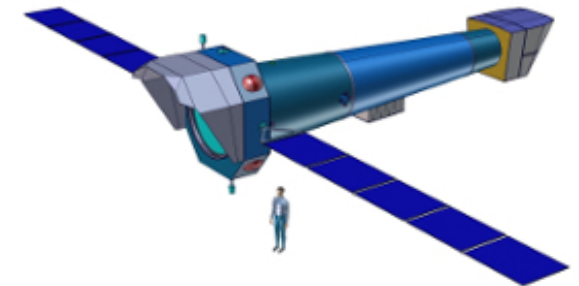


- Title: “**Simulazione Geant4 della focalizzazione di fotoni X: il caso ATHENA**”
- INAF/OAS supervisors: V. Fioretti\*, M. Cappi
- DIFA supervisor: C. Vignali

<b>Mission</b>	ATHENA
<b>Energy range</b>	X-rays
<b>Context</b>	Technologies for future X-ray space telescopes
<b>Required interests</b>	Software programming (C++/Python)
<b>Tools</b>	Geant4 ( <a href="https://geant4.web.cern.ch">https://geant4.web.cern.ch</a> )



- ATHENA is the next generation X-ray space observatory of the European Space Agency (planned launch in 2030)
- Monte Carlo simulations, using the Geant4 toolkit, are fundamental for the evaluation of the scientific performance of the mission
- the thesis goals are:
  - learning Geant4 and data analysis tools
  - learning the X-ray focusing techniques
  - simulating the X-ray photon reflection with Geant4
  - testing the ATHENA 3D model
  - evaluating the ATHENA angular resolution in Geant4



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