MT_RAYOR: a versatile raytracing tool for x-ray telescopes

The prediction of the properties of X-ray telescopes is important for the planning of observations and the interpretation of data. The mirror quality in terms of micro-roughness scattering and deformations relative to the idealized shape plays a crucial role for the sensitivity of the telescope for detecting celestial X-ray sources. Monte-Carlo raytracing systems have been used in all X-ray telescope missions. MT RAYOR is a system that can be used to analyze any Wolter-1 optics including simulation of extended sources, celestial or in the laboratory, with position dependent spectral properties. Examples that explore the MT RAYOR capabilities have been chosen from the future missions NuSTAR and Astrosat.

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