

# Status updated on the LOFT mission

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## 1. Introduction

The Large Observatory For x-ray Timing (LOFT) is a mission concept which was proposed to ESA as M3 and M4 candidate in the framework of the Cosmic Vision 2015-2025 program. Thanks to the unprecedented combination of effective area and spectral resolution of its main instrument and the uniquely large field of view of its wide field monitor, LOFT will be able to study the behaviour of matter in extreme conditions such as the strong gravitational field in the innermost regions close to black holes and neutron stars and the supra-nuclear densities in the interiors of neutron stars. The science payload is based on a Large Area Detector (LAD,  $> 8m^2$  effective area, 2-30 keV, 240 eV spectral resolution, 1 degree collimated field of view) and a Wide Field Monitor (WFM, 2-50 keV, 4 steradian field of view, 1 arcmin source location accuracy, 300 eV spectral resolution). The WFM is equipped with an on-board system for bright events (e.g., GRB) localization. The trigger time and position of these events are broadcast to the ground within 30 s from discovery. In this paper we present the current technical and programmatic status of the mission.

## Riferimenti bibliografici

- [1] Feroci et al., 2016, Proceedings of the SPIE, 9905, id. 99051R 20.