



ID de Contribution: 23

Type: Oral presentation

## **Search for gamma ray bursts with the X-ray telescope of the SVOM satellite: development and characterization of the on-board scientific software**

*jeudi 27 février 2020 14:00 (15 minutes)*

On August 17, 2017, a gravitational-wave event is detected by the LIGO and Virgo interferometers. For the first time, the signal is associated to the merger of two neutron stars. Two seconds after that, a gamma ray burst is detected by the Fermi satellite, inaugurating the multi-messenger astronomy. Many more of these events are expected to be detected in the future. The scientific results from multi-channels analysis will be unprecedented. Multi-messenger astronomy

will rely on a network of gravitational-wave interferometers (LIGO-Virgo-KAGRA), on many ground-based and space telescopes, and on high-energy neutrino detectors.

In this context, the SVOM satellite aims at detecting and characterizing gamma ray bursts starting at the end of 2021. On board, the MXT (micro-channel X-ray telescope) telescope is designed to localize the burst sources with a precision below  $1'$  within a few seconds. In my thesis I am involved in developing and implementing the scientific software algorithm on-board for MXT.

### **Field**

Not in the above

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**Classification de Session:** Talk

**Classification de thématique:** Astrophysics