Contribution ID: **20** Type: **not specified**

A tricky statistical search for Fast Optical Bursts

The long unexplored fast optical sky is now accessible thanks to new large ground-based telescopes and new generation instruments. Studying it may lead to new discoveries, but it is also challenging due to optical pollution.
In this talk, I will present our preliminary results obtained from an automated search and characterisation of mysterious Fast (millisecond) Optical Bursts (FOBs) in over 300 hours of observation with the fast photometer SiFAP2 at the Telescopio Nazionale Galileo.
Using a Bayesian Blocks-based algorithm we developed, we found a surprisingly high rate of 2 FOBs per hour. Our analysis suggests that many of these bursts likely have a non-astrophysical origin. However, some bursts show marginally significant evidence to the contrary.

Primary author: CAMPA, Carlo (Istituto Nazionale di Astrofisica (INAF))

Presenter: CAMPA, Carlo (Istituto Nazionale di Astrofisica (INAF))

Session Classification: Strumenti HW & SW, presente e futuro