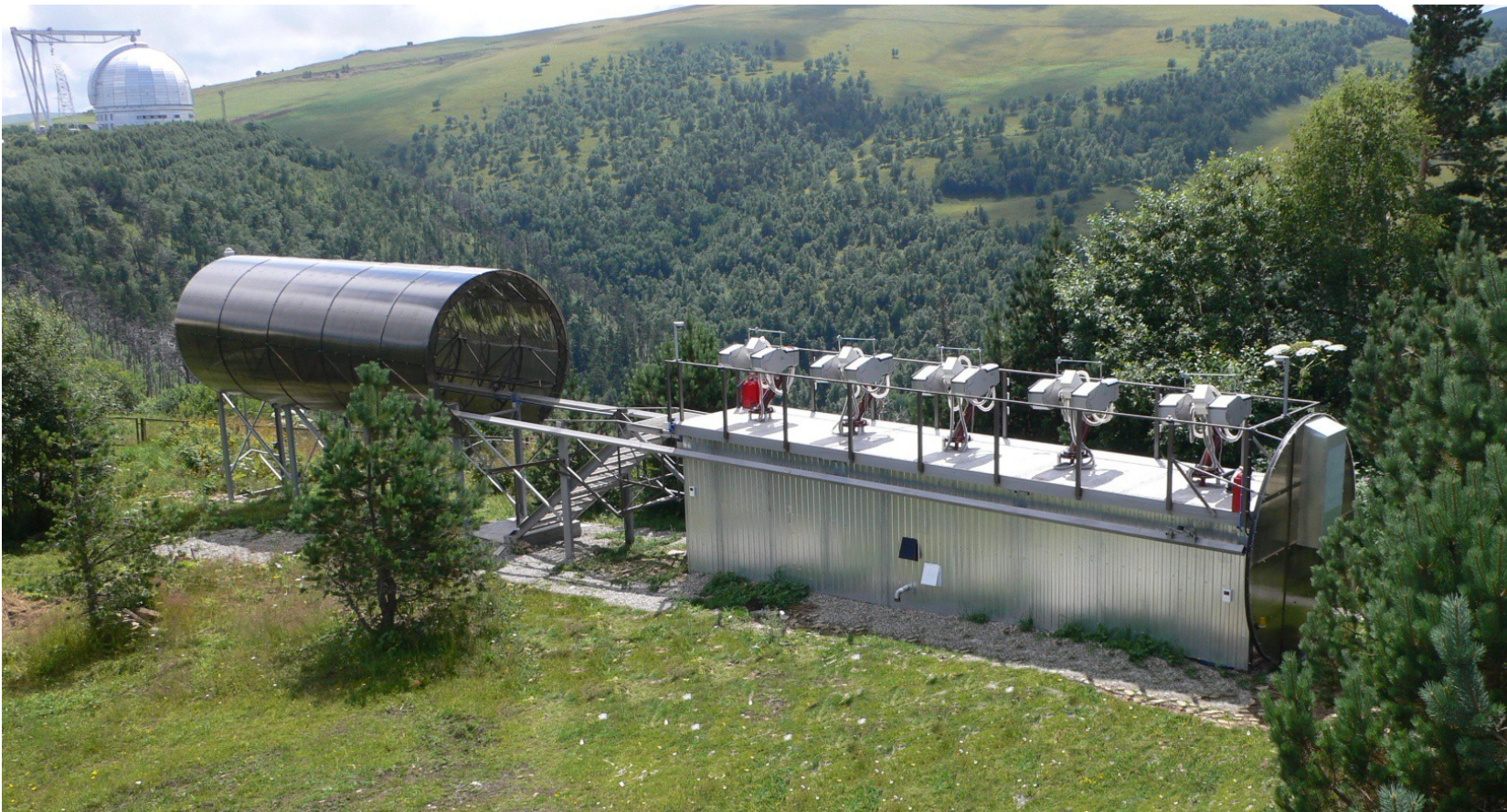


Untriggered search for rapid optical transients with Mini-MegaTORTORA wide-field monitoring system

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N. Orekhova ⁴, A. Perkov ⁴, V. Sasyk ²

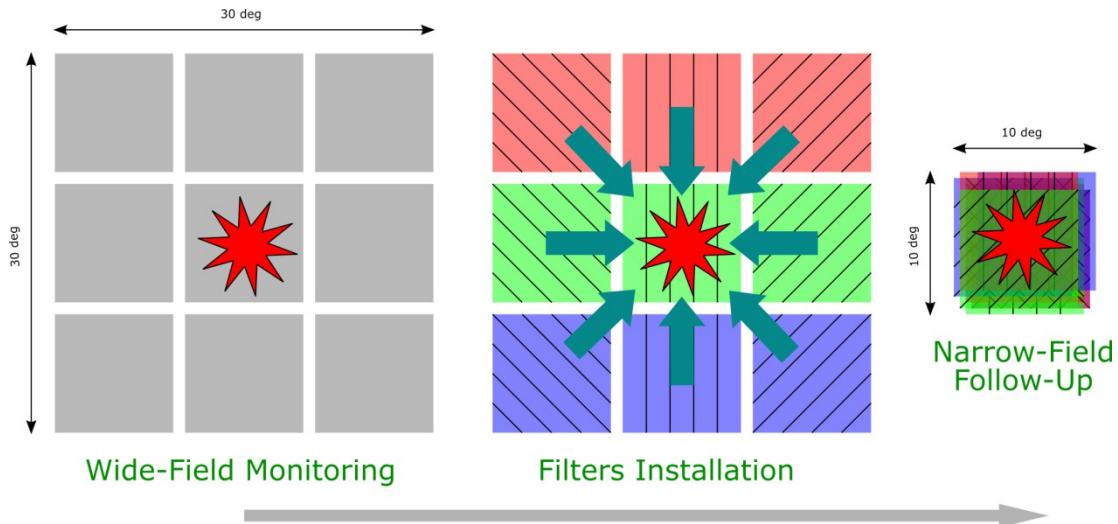
¹ SAO RAS, ² Kazan Federal University, ³ SAI MSU, ⁴ OJS RPC PSI, OOS “Arkhyz”



Special Astrophysical Observatory, near 6-m telescope



Untriggered search for rapid optical transients with Mini-MegaTORTORA wide-field monitoring system



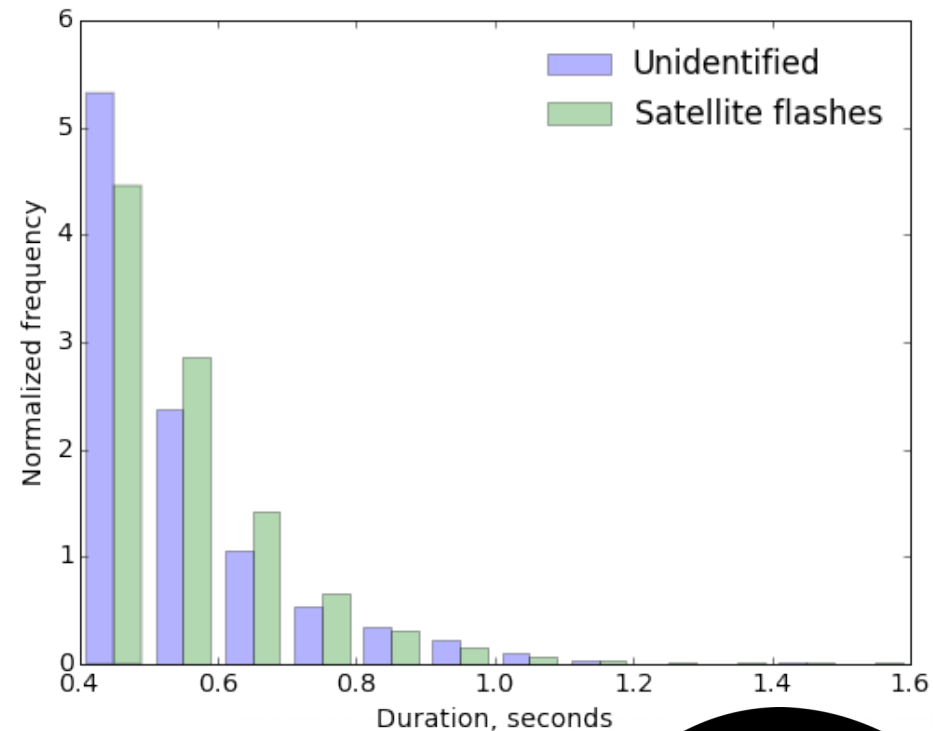
Nine channels, ~ 900 sq.deg. FOV and high temporal resolution (0.1 s typical exposures)

Independent detection and follow-up of rapid optical transients down to $V \sim 11$ m

10000 non-scintillation flashes detected since mid-2014, 1200 not identified with satellites in NORAD database

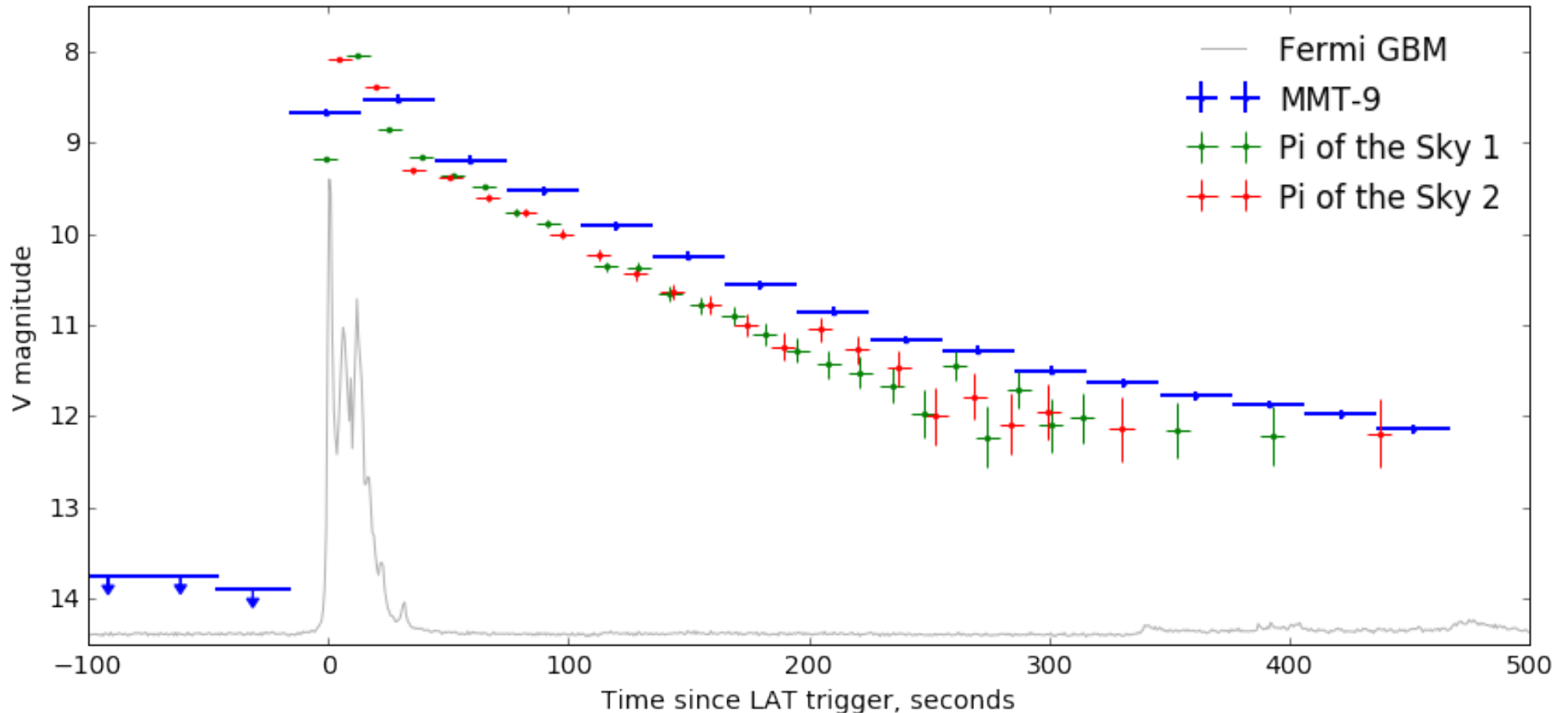
Regular follow-up of self-detected transients started in Feb 2016
To date, about 700 transients have been followed up, typically one to several tens per night

All of these transients are caused by satellite flashes



~~Untriggered~~ search for rapid optical transients with Mini-MegaTORTORA wide-field monitoring system

Fermi GRB 160625B



Detected by Mini-MegaTORTORA and Pi of the Sky wide-field cameras due to GBM precursor with ~4 deg. error box

Quite similar to **Naked-Eye Burst**, GRB080319B



~~Untriggered~~ search for rapid optical transients with Mini-MegaTORTORA wide-field monitoring system

Trigger LVC_194575 at 2015-10-22 13:33:19.942000

90 images from 2015-10-22 22:33:24.195000 to 2015-10-22 22:42:31.202000

