

# Towards observations of nuclearites in Mini-EUSO

*Friday 16 July 2021 19:18 (12 minutes)*

Mini-EUSO is a small orbital telescope with a field of view of 44x44 deg, observing the night-time Earth mostly in 320-420 nm band. Its time resolution spanning from microseconds (triggered) to milliseconds (untriggered) and more than 300x300 km of the ground covered, allows it to register thousands of meteors. Such detections make the telescope a suitable tool in the search for hypothetical heavy compact objects, which would leave trails of light in the atmosphere due to their high density and speed. The most prominent example are the nuclearites - hypothetical lumps of strange quark matter that could be stabler and denser than the nuclear matter.

The presentation will focus on the discovery potential of Mini-EUSO in this area, as well as experimental challenges exemplified by the observed meteors.

## Keywords

nuclearites; strangelets; meteors; heavy compact objects;

## Collaboration

other (fill field below)

## other Collaboration

JEM-EUSO

## Subcategory

Experimental Methods & Instrumentation

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**Session Classification:** Discussion

**Track Classification:** Scientific Field: DM | Dark Matter