## **Observation of sub-GeV Atmospheric y rays on GRAINE 2018 Balloon Experiment & Comparison with HKKM**

Precise observation of cosmic y rays with a balloon-borne emulsion telescope

Succeeded in **GRAINE's first detection and imaging (world's highest angular resolution)** of y-ray source, Vela pulsar

## **Balloon Exp. in 2018**

0.4m<sup>2</sup> apperture area

Large-scale observation in the next flight, for observation of GeV band, etc.

> **GRAINE-Next** in 2023 (approved)



Nuclear Emulsion







✓ Atmospheric y rays are the main background of observation also used as verification data for the amount of  $\pi 0$  (= v) produced from CR interaction at high altitudes.

