

## Performances, Calibration and Heritage of GIADA for Rosetta Mission

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GIADA (the dust detector on Rosetta) is close to start integration and verification activities on the Flight Model. The instrument is devoted to study the cometary dust flux evolution and grain dynamic properties. To achieve the required performances and the expected scientific return, GIADA has been designed as a multi-sensor instrument. It is able to detect grain passage by laser light scattering measurement, particle momentum through piezoelectric transducers and mass flux by means of quartz crystal microbalances.

Status of the project, performances evaluation and calibration activities will be reported.

Possible heritage coming from GIADA experience for future application will also be discussed. The detection techniques can be adapted to different dust physical properties in order to optimise performances in planetary and interplanetary dust collection. Starting from GIADA performances and detection capabilities, results and scientific return from these techniques can be foreseen.