Composition of dust at comet 67P

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During two years, the time-of-flight secondary ion mass spectrometer COSIMA (COmetary Secondary Ion Mass Analyzer), on board the Rosetta orbiter, performed *in situ* analysis of the dust particles ejected from comet 67P/Churyumov-Gerasimenko (67P), before and after perihelion. COSIMA collected more than 35,000 particles and fragments of particles, with size ranging from 14 µm to 1000 µm (images taken by the internal microscope COSISCOPE have a resolution of 14 µm / pixel) and analyzed about 250 of them.

We will present the global composition of 67P's dust, as deduced from COSIMA measurements. It will be compared to the *in situ* analyses of comet 1P/Halley, obtained by the Giotto and Vega missions, to the laboratory analyses on 81P/Wild 2 dust particles captured by the Stardust mission and to Chondritic Porous Interplanetary Dust Particles (CP-IDPs) collected on Earth.

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Tuesday Session 1
Theme 2: What are comets made of?

Chairperson – Simon Green

08:30	"Cometary dust particles of 67P under a microscope" INVITED TALK *Sihane Merouane*
08:55	"Compressive strength of 67P surface material derived from Philae surface contacts" *Philip Heinisch*
09:10	"Strength of cometary particles on the nano- to micrometer scale. Force-curve analysis of MIDAS data" *Lea Klaiber*
09:25	"Heterogeneity of the Composition of the Dust Particles of 67P/Churyumov-Gerasimenko" *Martin Hilchenbach*
09:40	"Rosetta/Alice Measurements of Atomic and Molecular Abundances and Dust in the Coma of 67P/Churyumov-Gerasimenko" *Ronald Vervack*
09:55	"Composition of dust at comet 67P" INVITED TALK *Anäis Bardyn*
10:20	Discussion
10:30	**Coffee**

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