Space Debris Re-entry Workshop

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The first international workshop on the re-entry of space debris was organised by ESA in 1983 in response to the re-entries of Skylab and Cosmos-1402, and has been repeated over the past decades in response to other significant re-entry events. Since then the topic has broadened from individual re-entries to include among other full object catalogue predictions, orbital lifetime assessment, and thermo-mechanical fragmentations in the lower atmosphere. From the point of view of space debris, the entire orbital lifetime after the end of mission down to potential impact on ground needs to be addressed.

The next iteration of the Space Debris Re-entry Workshop will be organised on the 28th of February and 1st of March 2018 at the premises of the European Space Operations Centre (ESA/ESOC), Darmstadt, Germany. Of particular interest for this iteration is the motion and break-up of large and heavy artificial objects in the lower thermosphere. In general, contributions are sought on the following topics (non-exhaustive):

Orbital lifetime estimation
Re-entry prediction uncertainties
Re-entry predictions on catalogue level
Attitude-Orbit coupling effects on re-entries
Atmospheric break-up: physics, observations, and modelling
Material and aerothermal responses to changing flow conditions
Ground impact analysis

The intended audience for this workshop are academia, spacecraft, launcher, and space surveillance operators, space agencies, and industry. The workshop is organised free of charge. Registration is done by sending an e-mail to reentry_support@esa.int (remove the capital P) which includes the name, contact details, affiliation of the registrant. We highly encourage you to add an abstract for a 20 minutes talk to your registration, to facilitate the exchange of evolution and new ideas on the topic of space debris re-entries.