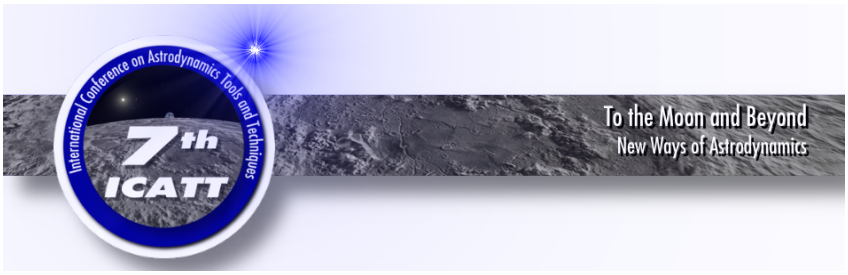

Contribution ID: **28** Type: **Oral presentation at the conference**

DRAMA 3.0.0: A one stop shop for the verification of space debris mitigation requirements

Formalized and internationally supported space debris mitigation guidelines have been in place for several decades. Since 2010, the International Organization for Standardization (ISO) has published a comprehensive set of space system engineering standards aimed at mitigating space debris. These standards and guidelines reflect the common requirements and practices around the globe and are nowadays made applicable to most newly developed missions worldwide. In order to verify these requirements, ESA maintains and develops since 2001 the comprehensive tool DRAMA (Debris Risk Assessment and Mitigation Analysis) for the compliance analysis of a space mission with space debris mitigation standards. DRAMA 2 was released worldwide and free of charge in 2014, to support mission designers comply with ISO 24113:2011. Now DRAMA 3 is in the final stages of it development to support the same objective in view of the major revision of the standard, scheduled for publication early 2019. Major extensions include: An update of the underlying space debris environment model to include MASTER-8 in support of collision avoidance and impact assessments, revision of the standard process for casualty risk assessment with an extensions of the orbital parameters and materials covered, and the establishment of python bindings to facilitate greater flexibility for the power users. This paper will present the full functionality overview with a link to the requirements.

Summary

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