An holistic approach to the space debris mitigation

Alessandro Rossi*1

¹Istituto di Fisica Applicata "Nello Carrara" IFAC-CNR (IFAC-CNR) – Area della Ricerca di Firenze Via Madonna del Piano 10 50019 Sesto Fiorentino (FI), Italie

Résumé

Notwithstanding the recommendations and the efforts of the space agencies of the last decades, the number of space debris is still growing.

A new paradigm, including space debris mitigation as an initial requirement from the very beginning of the design of a space mission, has to be introduced.

The lecture will first make an introduction to the space debris environment.

Then it will focus on the results of a large number of simulations showing the effectiveness of the currently proposed mitigation measures.

Finally some results of the most recent studies undertaken in the framework of the Horizon 2020 project ReDSHIFT, to reduce the space debris

population by passive means (as opposed to active debris removal), will be shown.

^{*}Intervenant