

**COMPUTATIONAL RESOURCES FOR STATISTICAL DATA ANALYSIS AND NUMERICAL SIMULATIONS IN ASTROBIOLOGY.** A. A. Radu<sup>1</sup> and E. M. Popescu<sup>2</sup>, <sup>1</sup>Affiliation (409 Atomistilor Street, Magurele, Ilfov, ROMANIA, 077125, aurelian.radu@spacescience.ro) for first author, <sup>2</sup>Affiliation for second author (409 Atomistilor Street, Magurele, Ilfov, ROMANIA, 077125, empopescu@spacescience.ro).

GRID computing is currently the standard way for handling and processing of large amounts of data. The Institute of Space Science is involved in GRID activities related to CERN experiments since the early stages of AliEn middleware development (2001-2002). Presently, the Institute contributes to the ALICE collaboration at CERN with more than 400 cores computing power and over 200 TB storage capacities. Over the last years the Institute's GRID infrastructure has provided computational resources to international collaborations such as Cluster, Venus Express, Planck, Euclid, Auger and JEM-EUSO.

These resources will be involved in statistical data analysis and numerical simulations for planned space missions. The presentation details these resources and their possible use for studies dedicated to the influence of the ionizing radiation on the habitability of planets, exoplanets and moons with particular emphasis on the alterations of planetary atmospheres.