

MODELLING THE INTERACTION OF MICROMETEOROID AND TECHNOGENOUS PARTICLES WITH A SPACE VEHICLE

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The number of particle collisions with a space vehicle (SV) is calculated on the basis of meteoric and technogenous environment. The space vehicle serves as a particle detector and is made in the form of a spherical inflatable filmy construction. The forecast of the number of collisions for the period of 2004-2012 is estimated. Dependences of the number of particles colliding with the SV are obtained as functions of its dimensions' parameters and orbit parameters.