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ESTIMATE THE CONTROL PRINCIPLE OF RADIATION EFFECT IN SPACE ENVIRONMENT FOR AN INTERPLANETARY HUMAN SPACE MISSION

Abstract

The future of manned space flight depends on an analysis of the numerous potential risks of travel into deep space. Space radiation could become dangerous to humans depending on space flight location, duration and the Sun's activity on the outside of Earth atmosphere. Future interplanetary human space missions need to be able to estimate the risks such as radiation which may harm astronaut. It is envisaged shown a keen interest to analyse and introduce prevention methods. This paper presents ongoing research in quantifying space radiation effects on humans, spacecraft and its subsystem. For this purpose, various under study in ground-based accelerator facilities and revealed some unique particle radiation effects not observed with conventional radiation. The ultimate goal is to keep radiation exposure below the limits therefore used ALARA principles to achieve reasonable results for a computation analysis. This investigation must take numerous factors such as galactic cosmic rays and solar activities into an account. Several strategies are studied for ameliorating the effect of radiation hazard for planned human inter planetary space flight. The results are compared with MOSFET, EVARM and Matroshka's dosimeters and concluded results were estimated to avoid the health risks for astronauts in ISS and on longer space missions.