

18th International School on the Effects of Radiation on Embedded Systems for Space Applications (SERESSA)

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System-Level Design and Radiation Test Methodologies based on a novel Software-Defined Radio Architecture for Space Applications

Wednesday 7 December 2022 13:30 (50 minutes)

Designing hardware for space is always challenging since material and electronics will be forced by the harsh environment, in particular due to radiation. There is truly a large diversity in space hardware design as seen from the space industry and agencies or the CubeSat community, that is mainly driven by costs, time and reliability aspects.

In this talk the different approaches, their advantages and disadvantages are discussed and a new approach in space hardware design will be presented including the selection of critical system elements/electronics and the qualification methodology for a radiation-tolerant communication system that has been developed by the speaker.

Presenter: BUDROWEIT, Jan (DLR)