

12th Course - Challenges in Radiation Damage and Radiation Protection during Design and Operation of Accelerator Facilities and Space Missions

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Damage to Electronics - Space Applications & RH: A view from Industry

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When a space system is developed, two major's inputs need to be considered from radiation point of view: the space environment definition and the RHA. Mission's parameters such as altitude, inclination or life time will impact the radiation environment, and therefore could have a major impact on the electronic parts selection and design definition. This presentation will present the different phases of radiation analysis when electronic system is developed for a space mission. Radiation level and sensitivity calculation will be described when considering RHA process. Design analysis and validation will be determined function of system requirements and operations, system and subsystems circuit design, and spacecraft layout. Finally RHA process implemented by prime industries that follow the complete electronic system development will be described.

Presenter: SAMARAS, Anne (Airbus)