

# *GSI - FAIR Colloquium*

*Main Lecture Hall (SB1 1.120), 64291 Darmstadt, Planckstraße 1*

*Tuesday, 12 April, 2016, 16:15 Uhr (Tee ab 15:45)*

*Pre-colloquium for students at 15:30*

*Veronique Ferlet-Cavrois – ESA / ESTEC*

*Radiation testing of electronic components for space applications*

*Electronic components aboard spacecrafts are bombarded by high energy particles. The impact on electronic components vary from slow degradation of electrical parameters, due to cumulative effects, to sudden unwanted events due to the interaction of one particle with the component stack and the underlying semiconductor. The interplay between energetic particles impinging components in space, the particular radiation effects induced and the subsequent electronic component response is complex. Depending on its function aboard, it may be critical for the spacecraft mission. The presentation will show ESA activities on radiation testing of electronic components. This will be supported by several examples highlighting the timeline of spacecraft development with the evolution of semiconductor technologies, the large variety of component types (power, data, etc) and responses under irradiation, the test coverage versus the application, and some examples of flight experiments and component behaviour in space.*

*Einladende: Christina Trautmann*

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