

## EuroNNAC and EuPRAXIA Workshop on Pilot Applications of Electron Plasma Accelerators (PAEPA)



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### Terrestrial reproduction of space radiation electrons using Plasma Wakefield Accelerators

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Space radiation poses a major hazard both for astronauts and spacecraft electronics, especially during prolonged mission periods. High energy protons and electrons, originated from the sun or deep space, are trapped into the Earth's magnetic field, forming radiation belts and act as main contributors regarding astronauts' radiation dose and electronic malfunctions. In this study, the terrestrial reproduction of the 'killer' electrons component using Plasma Wakefield Accelerators (PWFA) is discussed and the total produced dose in water is investigated.

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