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## **4. Reconstruction techniques for a space-based compact tracking calorimeter**

*Friday 16 February 2018 17:30 (30 minutes)*

To precisely characterize the dose astronauts receive during their missions, it is essential to measure the radiation environment omnidirectionally. To this aim, we developed an omnidirectional particle detector and implemented and compared several online and offline algorithms for particle-parameter extraction: A Bayesian filter, a Markov chain, and neural networks trained on Monte Carlo data. In the talk, we will review the different methods, their use cases, and their performances for our setup.

**Presenter:** PÖSCHL, Thomas