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What Machine Learning can do for a Focusing Aerogel Detectors

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Particle identification at the Super Charm-Tau factory experiment will be provided by a Focusing multilayer Aerogel ring imaging Cherenkov detector FARICH. Due to hardware constraints the detector captures a great amount of noise which must be mitigated to reduce both a data flow and further storage space. In this presentation we present our approach to filtering signal hits. The approach is inspired by object detection techniques for computer vision. Several ML based approaches to the FARICH reconstruction problem in different settings are also discussed.

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