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Noble Liquid Endcap EM Calorimeter: Geometry and Simulation

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We report on a conceptual design for a noble-liquid-based EM endcap calorimeter, where the absorber plates and readout electrodes are arranged in a turbine-like geometry. This design allows for frequent shower sampling and highly granular readout, without introducing cracks in phi. Furthermore, it can be constructed from multiple copies of a small number of absorber and readout board designs. The implementation of this geometry in the ALLEGRO detector simulation and initial simulation results will be presented.

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