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Real-scale R&D for XLZD

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The central TPC of the future XLZD observatory for rare events is a cylinder of approximately 3m linear scale that contains a total of 60t of cryogenic liquid xenon. Scaling the detector technology from the currently operational instruments XENONnT and LZ is challenging and requires full-scale R&D and later testing of detector components. The unique PANCAKE Facility in Freiburg allows testing flat components, such as TPC electrodes, at the relevant scale in cryogenic liquid or gaseous xenon environments. The poster presents the facility and the currently ongoing activities.

Summary

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