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## Fraunhofer IZM – Applied Research in Electronic Packaging for High Energy Physics Experiments

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As part of the Fraunhofer-Society, Fraunhofer Institute for Reliability and Microintegration (IZM) specializes in applied and industrial contract research. Fraunhofer IZM's focus is on packaging technology and the integration of multifunctional electronics into systems. Due to the knowledge in electronic packaging, system integration and reliability engineering Fraunhofer IZM has been a partner for high energy physics experiments since more than sixteen years. One main focus is the development and manufacturing of hybrid pixel detector modules. Pixel detector modules from Fraunhofer IZM are part of the vertex tracking detectors of ATLAS and CMS at the LHC at CERN as well as part of CSPADs at LCLS at SLAC. Furthermore modules were produced for many other research groups and companies from all over the world, starting from one device for first prototyping up to a low volume production of several hundred modules. With the focus on applied research and development there are different collaboration models possible. Besides short term direct contract research and development or direct manufacturing services also long term strategic alliances and cooperative projects have been started together with research groups from high energy physics experiments.

The talk will give an overview of applied research topics and opportunities for collaboration with Fraunhofer. Moreover different projects that have been started with partners from high energy physics experiments and new developments related to electronic packaging will be presented.

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