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Characterisation of the EXFLU1 batch from FBK

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The EXLU1 batch exited FBK clean rooms at the end of 2022, made of LGAD sensors on substrates with thicknesses ranging from 15 to 45 μm.

Different optimisation studies are addressed in the batch, namely the periphery design for thin substrates, the increase of the radiation tolerance of the gain implant through a carbon shield, and the first production of compensated LGAD, where the gain implant is obtained via the compensation of p^+ and n^+ dopants.

The characterisation of the sensors prior to irradiation is in progress. The latest results will be presented and discussed.

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