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Curved Mimosis as a preparation for FCC-SEED : status and plan.

The FCC-SEED is a new vertex detector concept that relies on high-granularity MAPS sensors, featuring low power consumption and a lightweight geometry. To achieve optimal performance with the smallest possible inner radius and minimal material budget, the FCC-SEED geometry is based on curved sensors.

As preparatory work to develop expertise in bending, connecting, and testing curved sensors, a mechanic&integration test program is currently underway at IPHC. This program uses Mimosis sensors to design and validate bending procedures. Following the testing of bending techniques, preparation of flex circuits, bonding, and the acquisition system, the goal is to characterise a single curved Mimosis sensor in a test beam, before progressing to the construction of a first ladder demonstrator.

After a short description of the FCCee-SEED geometry, the plan and status of the testing program discussed above will be presented.

Session

Mechanics

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