



Contribution ID: 5

Type: **Poster**

## Vertex Detectors for FCC-ee: Simulation and Sensor R&D

*Thursday 15 June 2023 20:00 (5 minutes)*

The FCC-ee is a proposed future  $e^+e^-$  collider capable of producing all SM particles in large quantities and clean experimental conditions. Up to four experiments can detect the collision products, with IDEA being one of the proposed detector concepts at FCC-ee. IDEA needs to fulfil requirements similar to experiments at other proposed lepton colliders such as reliable particle identification, efficient flavour tagging and superior momentum resolution.

This contribution presents the progress of the implementation of the IDEA detector in full simulation using the key4hep and DD4hep framework used by many future collider communities.

An emphasis will be put on the design and full simulation implementation of the vertex detector which is crucial for many of the experimental goals of the FCC-ee program. The related R&D on DMAPS will be briefly discussed as well.

### **My contribution is about a project related to sustainability**

No

### **Field of contribution**

Particle physics

### **Limited flash talk slots**

I would present a poster instead.

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