## FCC-ee requirements and specific designs

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To match the high statistical precision of the FCC-ee event samples, general purpose detectors that can measure and identify with high precision all the fundamental fermions and bosons of the standard model, and thereby access all known physics processes, are called for.

The talk will first briefy summarize the main requirements for a FCC-ee detector: (i) precise momentum measurement of charged particles; (ii) precise energy measurement of neutral particles and of jets; (iii) precise lifetime measurement of final state particles for tagging of final states containing c- or b-quarks or tau-leptons; (iv) very precise definition of the fiducial region. Then, an outline a specific detector concept being developed for the FCC-ee will be presented. Technologies being investigated include:

(i) a low-mass pixel vertex detector for tagging of particles with finite lifetimes;

(ii) a cluster-timing low-mass drift chamber for robust pattern recognition and specific ionization measurement; (iii) high precision dual-readout calorimetry for both em and hadronic particles. A 2 T axial magnetic field will be provided by a solenoid positioned either around or inside the calorimetry.

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