

Simulation on silicon tracker for the TAC-PF Detector

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The proposed Turkish Accelerator Center (TAC) Particle Factory is a super charm factory based on colliding a 1-GeV electron beam against a 3.5 GeV positron beam. The Particle Factory (TAC-PF) detector will be constructed for the detection of the producing particles from this collision. The main components of the preliminary design of TAC-PF detector are: tracker (SiT), time of flight (ToF), calorimetry (ECAL), and muon system (MUON). The initial design of TAC-PF tracking detector is composed of five individual modules with 3 cm distances between them. Each module has two parallel silicon strip detector planes. (carbon+ silicon + 1.5cm gap + carbon + silicon). In this work, simulation results using with FLUKA code will be presented for this structure.

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