The Beams and Applications Seminar Series

Turkish Accelerator Center Project

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Bldg. 401, Room B2100
Monday, August 24, 1:30 PM

(Please Note the Special Day)

Host: Ercan Alp, XSD

The Turkish Accelerator Center (TAC) Project has started with support of the State Planning Organization (SPO) of Turkey, coordinated by Ankara University http://thm.ankara.edu.tr. SPO is Turkey's main funding agency for big projects. After completion of the Feasibility Report (2000) and the Conceptual Design Report (2005), the third project phase began in 2006 as an inter-university project. The third phase has two main scientific goals: writing the TAC Technical Design Report and establishing an Infrared Free Electron Laser (IR FEL) facility as a first step. The TAC collaboration includes ten Turkish Universities. It is planned that the first facility will be an IR-FEL facility based on a 15-40 MeV superconducting electron linac and two optical cavities with 2.5 and 9 cm undulator magnets to scan 2-300 microns wavelength range. The main purpose of the facility is to use IR FEL for research in material science, nonlinear optics, semiconductors, biotechnology, medicine and photochemical processes.

It is planned that the TAC will also include an electron-positron collider as charm factory, a synchrotron radiation facility based on a 3.5-GeV positron synchrotron, a SASE FEL facility based on a 1-GeV electron linac, and few-GeV proton accelerator facility.

In this talk, the main TAC project goals and a road map are presented. The TDR and first TAC facility are planned to be completed in 2012. TAC construction will occur 2013-2023.

For more information visit

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