

SEMINAR NOTICE

*Department of Physics and Engineering Physics
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- SPEAKER:** Akbar Rohollahi, PhD Candidate
- TOPIC:** Investigation of the momentum transfer to the tokamak plasma through compact torus injection
- DATE:** Tuesday, March 15th, 2016
- TIME:** 3:30-4:30pm
- PLACE:** Rm. 103, Physics Building

ABSTRACT:

Compact Torus Injection (CTI) is one of the most advanced and promising methods for the fueling of tokamak reactors. It is the only core fueling method of large tokamaks. A Compact Torus (CT) is a fully ionized high density plasmoid magnetically confined by its own magnetic field which can withstand a large acceleration. STOR-M is equipped with a tangential CT injector which accelerates the CT to $v_{inject} = 90-210 \text{ kms}^{-1}$. CTI is a non-distributive central fuelling method which has the capability to perform localized fuelling. The localized central fuelling provides a means to control the plasma density and pressure profiles which may also enhance bootstrap current density leading to modification of magnetic shear in the plasma core [8]. Improvement in plasma confinement and suppression of magnetic fluctuation have been reported as a result of CTI. In this study, we have concentrated on effects of CTI on plasma flow and the momentum transferred from CTI to the tokamak plasma.

Coffee and Cookies will be served in the Physics lounge at 3:00 pm
for those attending the seminar