

Proposta di tesi magistrale, novembre 2019

- **Thesis type:** Master Thesis
- **Graduation course :** Physics
- **Type:** experimental/modelling
- **Title:** Comparative study and modelling of photo neutralizing techniques in fusion NBI injectors
- **Thesis description:** Today the development of a negative ion beam photoneutralizer is seen as crucial to rise the overall reactor efficiency. The thesis work aims to optimize the design under evaluation at Consorzio RFX of non-resonant optical cavity fed by a pulsed laser and carry on a comparative review of the optical resonator concept, focusing on radiation impact on optics, overall efficiency, thermal management, techniques for optical compensation and so on. Modelling tools will be developed mainly in COMSOL, while optics simulations will require also development of dedicate coding (Python).
- **Tutor:** A. Fassina, D. Fiorucci
- **Academic Relator:** L. Giudicotti
- **Head of research unit:** P. Sonato
- **Pre-requirements** (if necessary): no requirement
- **Date** 29/10/19
- **Status:** not assigned