

Tipo di tesi: Laurea magistrale

Corso di Laurea: Ingegneria

Tipologia: numerica

Titolo della tesi: Electromagnetic modelling and design of a multi gap solution for the passive stabilizing shell of Reversed Field Pinch experiments

Proponente: Domenico Abate (Matteo Bonotto, Roberto Cavazzana, Lionello Marrelli)

Relatore Accademico: Paolo Bettini

Capogruppo: Matteo Brombin

Argomento della tesi: The present thesis focuses on the electromagnetic modelling and design of a multi gap solution for the passive stabilizing shell of magnetic confinement fusion experiments in reversed field pinch (RFP) configurations. The modelling activity would allow studying the effects of multiple gaps in the passive stabilizing shell surrounding a RFP plasma by means of electromagnetic models with different level of complexity. The effect of different number and shape of gaps will be investigated in terms of plasma stability by developing dedicated numerical codes based on FEM/BEM approach. The multi gap selected solution will then be analysed in terms of engineering design and manufacturing processes.

Competenze richieste (se necessarie): Elettrotecnica, Elettrotecnica computazionale, conoscenza base di linguaggi di programmazione e ambienti di sviluppo (MATLAB)

Data della proposta: 24/09/2021

Stato: non assegnata

Laureando/a: (quando sarà assegnata)