

**PHD IN FUSION SCIENCE AND ENGINEERING**  
UNIVERSITÀ DEGLI STUDI DI PADOVA - UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II

**PNRR - CUP B53C22003070006**

NEW EQUIPMENT FOR FUSION EXPERIMENTAL RESEARCH AND TECHNOLOGICAL ADVANCEMENTS WITH RFX INFRASTRUCTURE (NEFERTARI)

**Development of advanced neutron and soft X-ray diagnostics with imaging capabilities for RFX-mod2**

PNRR WP-8: Laboratory for innovative diagnostics for imaging of soft X-rays and neutrons

Activity 4: Realization of a multiple lines of sight system with spectroscopic information for imaging of neutron emission from RFX-MOD2

Contact person: Marco Tardocchi (CNR Milano), [marco.tardocchi@istp.cnr.it](mailto:marco.tardocchi@istp.cnr.it)

**Development of a laser-induced breakdown spectroscopy for fusion-relevant plasma-material interaction studies in the linear device BiGyM**

PNRR WP-7: Laboratory for the study of fusion relevant high-density plasmas and materials interaction

Activity 3: Setup of BiGyM upgraded diagnostic system

Contact person: Anna Cremona (CNR, Milano), [anna.cremona@istp.cnr.it](mailto:anna.cremona@istp.cnr.it)

**Diagnostics of confinement properties of fusion plasmas**

PNRR WP5: Neutral beam injection in RFXmod2

Activity 2: Beam Emission Spectroscopy (BES) and Fast Ions D-Alpha (FIDA) diagnostics

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**Thermal content dynamics in magnetically confined plasmas**

PNRR WP4: Enhancement of RFX-mod2 main plasma diagnostics

Activity 3: Compact Neutral Particle Analyzer (CNPA) diagnostic

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**Title: Development of LIBS methodologies for fusion relevant materials analysis**

PNRR WP9: Research and Development of optical plasma diagnostics and modelling for fusion

Activity 3: Development of a high-density plasma source

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