

**Doctoral Degree – PhD Programme in Fusion Science and Engineering
University of Padova and University of Napoli
XXXIX Cohort (Bando Ordinario, DM117, DM118)**

Last Name, First	Supervisor(s)	Thesis	Research conducted at
CAMERA Gianluca	Giuseppe Di Gironimo (AC, S, UNINA) Fabio Villone (AC, CO-S, UNINA)	<i>Multi-physics modelling and simulation for the design of nuclear fusion components</i>	University of Naples Federico II/ Consorzio CREATE
CICIONI Rachele	Lidia Piron (S, UNIPD) Nicolò Ferron (CO-S, CRFX)	<i>Modelling and development of controllers for DTT</i>	University of Padova/Consorzio RFX
CINNIRELLA Luca	Gianluigi Serianni (AC, S, ISTP-CNR, CRFX) Marco Barbisan (CO-S, ISTP-CNR)	<i>Diagnostic of confinement properties of fusion plasmas</i>	University of Padova/Consorzio RFX
EMMA Giulia	Emanuele Sartori (AC, S, UNIPD) Margherita Ugoletti (CO-S, ISTP-CNR) Barbara Zaniol (CO-S, CRFX)	<i>Improving the homogeneity of large-size multi-beamlet ITER negative ion source</i>	University of Padova/Consorzio RFX
GRANDIN Matteo	Paolo Bettini (AC, S, UNIPD) Angelo Cenedese (CO-S, UNIPD) Mattia Bruschetta (CO-S, UNIPD)	<i>Advanced control techniques in magnetic confinement fusion devices</i>	University of Padova/Consorzio RFX
MOLISANI Sara	Matteo Zuin (AC, S, ISTP-CNR, CRFX) Nicola Vianello (CO-S, ISTP-CNR, CRFX) Maurizio Giacomini (CO-S,	<i>Advanced studies on magnetically confined plasmas for fusion research</i>	University of Padova/Consorzio RFX

	UNIPD)		
NERI Marco	Raffaele Albanese (AC, S, UNINA) Roberto Ambrosino (CO-S, UNINA)	<i>Linearized 3D MHD equilibria in tokamak using finite elements</i>	University of Naples Federico II/ Consorzio CREATE
ORLANDI Luca	Lidia Piron (AC, S, UNIPD) Andrea Rigoni (CO-S, CRFX)	<i>Development of machine learning methods to detect and resolve faults in plasma diagnostics</i>	University of Padova/Consorzio RFX
RUFFINI Federico	Matteo Zuin (AC, S, ISTP-CNR, CRFX) Gianluca De Masi (CO-S, CRFX) Jorge Santos (CO-S, IST-IPFN)	<i>Design and development of the Plasma Position Reflectometry system on DTT</i>	University of Padova/Consorzio RFX
SALVIA Claudia	Paolo Bettini (AC, S, UNIPD) Silvio Ceccuzzi (CO-S, DTT) Fabio Zanon (CO-S, ENI)	<i>Development of a simulation code to analyze the behaviour of solid-state power amplifiers for ICH systems</i>	ENEA/ University of Padova

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XXXVIII Cohort – PNRR**

Last Name, First	Supervisor(s)	Thesis	Research conducted at
CIPELLI Stefano Francesco	Anna CREMONA (CNR-ISTP) Gianmaria DE TOMMASI (AC, UNINA)	<i>Development of a laser-induced breakdown spectroscopy for fusion-relevant plasma-material interaction studies in the linear device BiGyM</i>	University of Padova/ CNR- ISTP, Milan
DE PICCOLI Chiara	Tommaso BOLZONELLA (AC, CRFX)	<i>Numerical investigation of fast ion distribution functions in fusion devices and their optimization by different mixes of NBI and ICRH in view of ITER operations</i>	University of Padova/Consorzio RFX
GUIOTTO Federico	Andrea MURARO (CNR-ISTP) Gabriele CROCI (UNIMB) Paolo BETTINI (AC, UNIPD)	<i>Development of advanced neutron and soft X-ray diagnostics with imaging capabilities for RFX-mod2</i>	University of Padova/Consorzio RFX
HUSSAIN Arshad	Giorgio DILECCE (CNR-ISTP) Gianmaria DE TOMMASI (AC, UNINA)	<i>Development of LIBS methodologies for fusion- relevant materials analysis</i>	University of Padova/ CNR- ISTP, Bari
PORCU Pasquale	Matteo ZUIN (AC, CRFX/CNR- ISTP)	<i>Thermal content dynamics in magnetically confined plasmas</i>	University of Padova/Consorzio RFX

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Last Name, First	Supervisor(s)	Thesis	Research conducted at
CANDELA Silvia	Adriano PEPATO (INFN), Paolo BETTINI (UNIPD)	<i>Additive manufacturing of refractory metals for nuclear fusion applications</i>	University of Padova/INFN Labs
GAMBRIOLI Matteo	Lidia PIRON (AC, UNIPD)	<i>Error Field Control in Magnetic Fusion Devices</i>	University of Padova/Consorzio RFX
LOMBARDO Jacopo	Fulvio AURIEMMA (CRFX), Emilio MARTINES (UNIMB)	<i>Integrated modelling and scenario development for DTT</i>	University of Padova/Consorzio RFX
LA MATINA Miriam	Lorella CARRARO (CRFX), Leonardo GIUDICOTTI (UNIPD)	<i>A dispersion interferometer for RFX-Mod2</i>	University of Padova/Consorzio RFX
TOMASINA Edoardo	Leonardo PIGATTO (CRFX), Tommaso BOLZONELLA (CRFX)	<i>Physics of magnetic perturbations for fusion plasma control</i>	University of Padova/Consorzio RFX
ZOPPOLI Andrea	Giuseppe DI GIRONIMO (UNINA)	<i>Design and development of a remote Handling test and training facility for fusion reactors</i>	University of Naples Federico II/ Consorzio CREATE

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Last Name, First	Supervisor(s)	Thesis	Research conducted at
ACAMPORA Emilio	MATTEI Massimiliano (UNINA) AMBROSINO Roberto (UNINA)	<i>Alternative magnetic configurations and plasma exhaust control</i>	University of Naples Federico II/Consorzio CREATE
AGOSTINI Marco	BUSTREO Chiara (CRFX) ZOLLINO Giuseppe (UNIPD)	<i>Evaluation of the role in nuclear fusion in future energetic systems with emphasis on carbon-free technologies</i> Supervisor	University of Padova/Consorzio RFX
CANDELA Valentina	SONATO Piergiorgio (UNIPD), PEPATO Adriano (INFN)	<i>Additive manufacturing of pure copper and copper alloys for High Energy applications</i>	University of Padova/INFN Labs
CIUFO Stefano	ZUIN Matteo (CRFX) FADONE Michele (CRFX) BETTINI Paolo (UNIPD)	<i>Design, manufacturing and operation of plasma-facing component conditioning systems in fusion devices</i>	University of Padova/Consorzio RFX
DE NARDI Marco	GAIO Elena (CRFX) BETTINI Paolo (UNIPD)	<i>Technology R&D for H&CD Power Supplies for DEMO</i>	University of Padova/Consorzio RFX
FRATTOLILLO Domenico	MATTEI Massimiliano (UNINA)	<i>Plasma Constrained Control Technique in Nuclear Fusion Devices</i>	University of Naples Federico II/Consorzio CREATE
FRESCURA Alessandro	BETTINI Paolo (UNIPD)	<i>High voltage components gas insulated for applications in the field of nuclear fusion</i>	University of Padova/Consorzio RFX
LANZOTTI Francesca Giovanna	VILLONE Fabio (UNINA) DI GIRONIMO Giuseppe (UNINA) MARZULLO Domenico (UNITS)	<i>Systems engineering, configuration management and digital twin in fusion power plant: the Divertor Tokamak Test facility</i>	University of Naples Federico II/Consorzio CREATE

OTTAVIANO Daniele	DE TOMMASI Gianmaria (UNINA) CINQUE Marcello (UNINA) MANDUCHI Gabriele (CRFX)	<i>Advancing mixed-criticality real-time embedded systems for fusion diagnostics and control</i>	University of Naples Federico II/Consorzio CREATE
SANTORO Francesco	FERRO Alberto (CRFX) BETTINI Paolo (UNIPD)	<i>Development of new solutions for high voltage power supplies of Neutral Beam Injector for nuclear fusion experiments</i>	University of Padova/Consorzio RFX
SEGALINI Beatrice	SARTORI Emanuele (UNIPD) SERIANNI Gianluigi (CRFX)	<i>Uniformity optimisation of the negative ion beam source for the ITER neutral beam injector</i>	University of Padova/Consorzio RFX
TREVISAN Luca	MANDUCHI Gabriele (CRFX) MARCONATO Nicolò (UNIPD)	<i>High performance networks for control and data acquisition in modern fusion experiments</i>	University of Padova/Consorzio RFX