

FuseNet PhD event 2026 - Tuscia University - Viterbo

Poster session 1: 15:00 - 16:10

Panel	Name	Topic of your PhD project
1	Aaron Vesa	Gas flow and pumping in tokamaks
2	Ahmad Al-Fatly	Investigation and characterisation of novel additively manufactured tungsten.
3	Alan Ricardo Cintora de la Cruz	Design and implementation of high-frequency diagnostic systems in the RFX-mod2 device
4	Albert Civit	3D non-linear MHD simulations of stellarator instabilities
5	Alessandra Tonel	Plasma rotation and MHD instabilities
6	Alexis Pittas	Radiation damage effects on FeCr alloys
7	Andrea Corbioli	Application of non-linear control techniques to MHD stability of fusion devices
8	Andrea Marchegiani	Characterisation of HTS coils and prototyping of measurement devices
9	Andrea Mastrogirolamo	Boundary plasma modelling in tokamak and linear machines
10	Anna Taipale	Crystal Plasticity Modelling of Fracture of Tungsten
11	Benedikt Buchner	Depth profiling of hydrogen isotopes and helium to large depths
12	Carlo Rossetti	MBSE and Digital Twin based development of Balance of Plant for fusion power reactors
13	Carlos Refugio Muñoz García	Development of a mode detector for ITER's high power waveguides
14	Carolina Albanese	Lattice Boltzmann Method for Multiphase Flows
15	Charles Edwards	Hydrogen trapping and permeation in ceramic coatings for fusion powerplant applications
16	Charlotte Brown	Advanced tungsten manufacturing techniques for fusion applications
17	Christian Avanzato	Pumping and puffing systems for the DTT tokamak
18	claudia salcuni	Stellarator Turbulence Optimisation
19	Constant Panisset	Development of Multistage Depressed Collector for Gyrotrons
20	Daniel Švorc	Improved integrated modelling of particle transport around the separatrix
21	David Becker	Alternative microwave sources for ECRH
22	David Bermúdez	Modelling and experimental determination of the fracture toughness of ITER structural materials
23	Elouen SUARD	Gas-surface interactions in fusion reactors: experimental simulation of fuel recycling
24	Emanuele Corongiu	Monitoring of transient events in nuclear fusion machines by machine learning
25	Erica Lo Cascio	From Simulation to Engineering: Proof of Concept of a Digital Twin for Tokamak Design
26	Ethan Attwood	Machine Learning Characterisation of Nonlinear Ion Cyclotron Emission
27	Farouq Alatassi	An intersection between microwave physics and materials for nuclear fusion applications.
28	Federico Gaspari	Plasma Wall Interaction. The erosion of boron and mixed boron-tungsten materials and its role in plasma pollution, addressing it both through experiments and the use of modelling tools.
29	Francesco Latini	Integrated experimental and numerical study of plasma disruptions in the ENN's EXL-50U and EHL-2 tokamaks
30	Francisco Miranda	Casting light on tungsten for ITER: Unraveling irradiation effects
31	Frankie Hough	Utilising High Temperature In-Situ EBSD to Observe Phase Changes in RAFM Steels
32	Freddie Daniels	Computational modelling of polycrystalline superconductors for fusion using Time-Dependent Ginzburg-Landau theory.
33	Georges Chahni	Development of testing methods for newly developed RAFM Steels
34	Gianluca Camera	Electromagnetic analyses of plasma disruptions
35	Gianluca Di Pietro	Research on Power Supply Systems Tailored for Fusion Applications, Including Power Electronics and Control
36	Gianluca Palumbo	MITICA cryopumps and cryogenic plant
37	Giulia Emma	First application of visible tomography to characterise beam homogeneity in the SPIDER multi-beamlet configuration
38	Giulio Azzalin	Optimization of the negative ion source prototypes for the ITER injector: impact of RF discharge dynamics on plasma expansion and beam extraction
39	Giuseppe Nicolò	Multiphysics study of the nuclear, thermofluid-dynamic, and thermomechanical performance of components exposed to the plasma of a nuclear fusion reactor
40	Iacopo Regoli	Neutral Beam Injector Sources
41	Inès Vergara	Plasma diagnostic
42	Ivan Kuzmych	Optimization of Diagnostic Sets for a Future Stellarator Reactor
43	Jack Atherton	Modelling Hydrogen Isotope Transport in Ceramic Coatings for future fusion power plants
44	Jaime Caballero	Modelling of turbulent transport in the edge and SOL using gyrokinetics simulations
45	Jaime Romero Picapiedra	Physical mechanisms of I-mode type improved confinement regimes in fusion plasmas confined in a tokamak.
46	Jakub Chlum	Bolometry diagnostics for tokamak power exhaust studies
47	James Tufnail	Radiation Damage of Superconductors
48	Jiří Malinák	Integrated modelling of impurity transport across the separatrix of tokamak plasmas
49	JISHANT TALWAR	Study on high current ReBCO Laminated stacked-tape soldered conductor (LASSO) concept for quench protection of large-scale magnets
50	Jonathan Pavan	Cooling and quench in HTS winding packs for tokamaks
51	Joost Prins	Neural Green's Operators for Kinetic Plasmas
52	Juan Pablo Broude Garcia	Dust Transport in Magnetized Plasmas
53	Jule Frank	Physics-Informed Graph Neural Networks for Surrogate Modeling of Finite Element Structural Analyses of Stellarator Fusion Coils
54	Julijan Peric	Novel approaches for validation of nuclear cross-sections in the water activation process for fusion applications
55	Laura Pittaluga	Integrated design of high field magnetic systems for a fusion power plant
56	Letizia Melaragni	Development of a system for the mitigation of plasma disruptions in DTT, based on the shattering of cryogenic pellets
57	Lorenzo Bramucci	Modelling and Analysis of the MAST-U divertor: opportunities toward the design of an innovative divertor for ARC and DEMO
58	Lorenzo Milia	Speeding up beam simulations with Physics-Informed Neural Networks: a proof-of-concept approach to solve the Poisson equation for negative ion beam simulations
59	Lorenzo Saccaro	Physics-informed deep learning neural networks models for real-time control of tearing instabilities in magnetic confinement fusion experiments
60	Luca Orlandi	Development of machine learning methods to detect and resolve faults in plasma diagnostics