

FuseNet PhD event 2026 - Tuscia University - Viterbo

Poster session 1: 15:00 - 16:30

| Panel | Name                          | Affiliation                                                                        | Topic of your PhD project                                                                                                                                                                 | Oral presentation (PechaKucha) | Poster Presentation |
|-------|-------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|
| 1     | Aaron Vesa                    | Aalto University, Finland                                                          | Gas flow and burntime in tokamaks                                                                                                                                                         | Yes                            | No                  |
| 2     | Alireza Ali-Fathi             | University of Manchester, United Kingdom                                           | Investigation and characterization of novel additive manufactured function                                                                                                                | Yes                            | Yes                 |
| 3     | Alan Ricardo Cinto de la Cruz | Università di Padova-Centro Ricerche Fusione, Italy                                | Design and implementation of high-frequency diagnostic systems in the RFX-mod2 device                                                                                                     | No                             | Yes                 |
| 4     | Albert Cuvit                  | Technical University of Catalonia, Spain                                           | 3D non-linear MHD simulations of deleterious instabilities                                                                                                                                | No                             | Yes                 |
| 5     | Alexandro Tinel               | Università di Padova-Centro Ricerche Fusione, Italy                                | Plasma rotation and MHD instabilities                                                                                                                                                     | Yes                            | Yes                 |
| 6     | Alkivi Pittas                 | National Center for Scientific Research "Demokritos", Greece                       | Radiation damage effects on FeCr alloys                                                                                                                                                   | No                             | Yes                 |
| 7     | Andrea Cerbelli               | Università di Padova-Centro Ricerche Fusione, Italy                                | Application of non-linear control techniques to MHD stability of fusion devices                                                                                                           | No                             | Yes                 |
| 8     | Andrea Marchegiani            | University of Tuscia, Italy                                                        | Characterisation of HTS coils and prototypes of measurement devices                                                                                                                       | Yes                            | No                  |
| 9     | Andrea Mastrogirolamo         | Politecnico di Milano, Italy                                                       | Boundary plasma modelling in tokamak and linear machines                                                                                                                                  | Yes                            | Yes                 |
| 10    | Anna Tsapale                  | University of Oxford, United Kingdom                                               | Cerital Plasticity Modelling of fracture in tungsten                                                                                                                                      | No                             | Yes                 |
| 11    | Benedikt Buchner              | Max Planck Institute for Plasma Physics, Germany                                   | Depth profiling of hydrogen isotopes and helium to large depths                                                                                                                           | Yes                            | No                  |
| 12    | Carlo Rossetti                | Università di Padova-Centro Ricerche Fusione, Italy                                | MBIX and Digital Twin based development of Balance of Plant for fusion power reactors                                                                                                     | No                             | Yes                 |
| 13    | Carlos Belafante Muñoz García | Stuttgart University                                                               | Development of a mode detector for ITER's high power waveguides                                                                                                                           | Yes                            | Yes                 |
| 14    | Carolina Albanese             | University of Tuscia, Italy                                                        | Lattice Boltzmann Method for Multichase flows                                                                                                                                             | Yes                            | Yes                 |
| 15    | Charles Edwards               | University of Manchester, United Kingdom                                           | Hydrogen tritane and sinterisation in ceramic coatings for fusion powerplant applications                                                                                                 | Yes                            | Yes                 |
| 16    | Charlotte Brown               | University of Manchester, United Kingdom                                           | Advanced tungsten manufacturing techniques for fusion applications                                                                                                                        | Yes                            | Yes                 |
| 17    | Christian Avanzato            | University of Tuscia, Italy                                                        | Pumping and puffing systems for the DTT tokamak                                                                                                                                           | No                             | Yes                 |
| 18    | claudia scaron                | CEMAT                                                                              | Stellarator Turbulence Optimization                                                                                                                                                       | No                             | Yes                 |
| 19    | Constant Panisset             | École Polytechnique Fédérale de Lausanne (EPFL) - Swiss Plasma Center, Switzerland | Development of Multistage Depressed Collector for Gyrotrons                                                                                                                               | Yes                            | Yes                 |
| 20    | Daniel Svore                  | Institute of Plasma Physics, Czech Academy of Sciences                             | Improved integrated modelling of particle transport around the separatrix                                                                                                                 | No                             | Yes                 |
| 21    | David Becker                  | DIFFER, The Netherlands                                                            | Alternative microwave sources for ICRH                                                                                                                                                    | No                             | Yes                 |
| 22    | David Bermúdez                | SCX CNR                                                                            | Modelling and experimental determination of the fracture toughness of ITER structural materials                                                                                           | No                             | Yes                 |
| 23    | Eloise SARRID                 | Aix Marseille Université, France                                                   | Surface-wave interactions in fusion reactors: experimental simulation of fuel recycling                                                                                                   | No                             | Yes                 |
| 24    | Emanuele Coronigi             | University of Cagliari, Italy                                                      | Monitoring of transient events in nuclear fusion machines by machine learning                                                                                                             | No                             | Yes                 |
| 25    | Erica Lo Cascio               | University of Palermo, Italy                                                       | From Simulation to Engineering: Proof of Concept of a Digital Twin for Tokamak Design                                                                                                     | No                             | Yes                 |
| 26    | Marion Varris                 | Budapest University of Technology and Economics, Hungary                           | Helium diagnosis for the characterization of coolant as flow sensorless in the Shattered Pellet Injector of the ITER DMS                                                                  | No                             | Yes                 |
| 27    | Farouk Aftab                  | University of Manchester, United Kingdom                                           | An intersection between microwave physics and materials for nuclear fusion applications.                                                                                                  | No                             | Yes                 |
| 28    | Federico Casari               | Politecnico di Milano, Italy                                                       | 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. | No                             | Yes                 |
| 29    | Francesco Letini              | University of Tuscia, Italy                                                        | Integrated experimental and numerical study of plasma disruptions in the ENIS L6E-S90 and ENIS L6E-S100                                                                                   | Yes                            | Yes                 |
| 30    | Francisco Miranda             | SCX CNR Belgian Nuclear Research Centre, Belgium                                   | Casting light on tungsten for ITER: Unravelling irradiation effects                                                                                                                       | Yes                            | Yes                 |
| 31    | Frankie Inghel                | University of Manchester, United Kingdom                                           | Ultrafast Temperature in Situ IRSD to Observe Phase Changes in RAFM Steels                                                                                                                | Yes                            | Yes                 |
| 32    | Freddie Daniels               | Durham University, United Kingdom                                                  | Computational modelling of polycrystalline superconductors for fusion using Time-Dependent Ginzburg-Landau theory                                                                         | No                             | No                  |
| 33    | Georgios Chahli               | University of Manchester, United Kingdom                                           | Development of testing methods for newly developed RAFM Steels                                                                                                                            | No                             | Yes                 |
| 34    | Gianluca Camera               | Università di Padova-Centro Ricerche Fusione, Italy                                | Electromagnetic analysis of plasma disruptions                                                                                                                                            | No                             | Yes                 |
| 35    | Gianluca Di Pietro            | University of Tuscia, Italy                                                        | Research on Power Supply Systems Tailored for Fusion Applications, Including Power Electronics and Control                                                                                | No                             | Yes                 |
| 36    | Gianluca Palumbo              | ENEA, Italy                                                                        | MITCA cryosystems and cryogenic plant                                                                                                                                                     | Yes                            | Yes                 |
| 37    | Giulia Elena                  | Università di Padova-Centro Ricerche Fusione, Italy                                | First application of visible tomography to characterise beam homogeneity in the SPIDER multi-beamlet configuration                                                                        | Yes                            | Yes                 |
| 38    | Giulio Azzalini               | Consorzio RFX                                                                      | Optimization of the negative ion source prototypes for the ITER injector: impact of RF discharge dynamics on plasma expansion and beam attraction                                         | Yes                            | Yes                 |
| 39    | Giuseppe Nicolo               | University of Palermo, Italy                                                       | Multiscale study of the effect of thermofluid-dynamic and thermochemical performance of components exposed to the plasma of a nuclear fusion reactor                                      | No                             | Yes                 |
| 40    | Iacopo Reoli                  | University of Pisa - DIC, Italy                                                    | Neutral Beam Injector Sources                                                                                                                                                             | No                             | Yes                 |
| 41    | Inés Vergara                  | École Polytechnique Fédérale de Lausanne (EPFL) - Swiss Plasma Center, Switzerland | Plasma diagnosis                                                                                                                                                                          | Yes                            | Yes                 |
| 42    | Ivan Kucmarch                 | Max-Planck-Institut f. Plasmaphysik                                                | Optimization of Diagnostic Sets for a Future Stellarator Reactor                                                                                                                          | Yes                            | Yes                 |
| 43    | Jack Albertson                | Baylor University                                                                  | Modelling hydrogen isotope transport in Ceramic Coatings for future fusion power plants                                                                                                   | No                             | Yes                 |
| 44    | James Calverley               | DIFFER                                                                             | Modelling of turbulent transport in the edge and SOL using synthetic turbulence simulations                                                                                               | No                             | Yes                 |
| 45    | Jaime Romero Picapedra        | University Carlos III of Madrid, Spain                                             | Physical mechanisms of i-mode type imposed confinement regimes in fusion plasmas confined in a tokamak                                                                                    | No                             | Yes                 |
| 46    | Jakub Chlum                   | Czech Technical University in Prague, Czech Republic                               | Bolometry diagnostics for tokamak power exhaust studies                                                                                                                                   | No                             | Yes                 |
| 47    | James Talhall                 | University of Oxford, United Kingdom                                               | Radiation Damage of Superconducting                                                                                                                                                       | No                             | No                  |
| 48    | Jiří Malinský                 | Czech Technical University in Prague, Czech Republic                               | Integrated modelling of impurity transport across the separatrix of tokamak plasmas                                                                                                       | No                             | Yes                 |
| 49    | JISHANT TALWAR                | École Polytechnique Fédérale de Lausanne (EPFL) - Swiss Plasma Center, Switzerland | Study on high current Nb <sub>3</sub> Sn Laminated stacked tape soldered conductor (LASSO) concept for quench protection of large-scale magnets                                           | Yes                            | Yes                 |
| 50    | Jonathan Pevan                | Commissariat à l'Energie Atomique, France                                          | Cooling HTS Conductors for Fusion: Can Cold Condense?                                                                                                                                     | Yes                            | Yes                 |
| 51    | Joost Prins                   | Endhoven University of Technology, The Netherlands                                 | Neural Green's Operators for Kinetic Plasmas                                                                                                                                              | Yes                            | Yes                 |
| 52    | Juan Pablo Broude Garcia      | University of Liverpool                                                            | Dust Transport in Magnetized Plasmas                                                                                                                                                      | No                             | Yes                 |
| 53    | Julia Frank                   | Max Planck Institute for Plasma Physics, Germany                                   | Physics-Informed Graph Neural Networks for Surrogate Modeling of Finite Element Structural Analyses of Stellarator Fusion Coils                                                           | No                             | Yes                 |
| 54    | Julian Perc                   | University of Ljubljana, Slovenia                                                  | New approaches for validation of nuclear cross-sections in the water activation process for fusion applications                                                                           | No                             | Yes                 |
| 55    | Laura Pittlage                | Commissariat à l'Energie Atomique, France                                          | Integrated design of high-field magnet systems for a fusion power plant                                                                                                                   | No                             | Yes                 |
| 56    | Letizia Matarangi             | University of Tuscia, Italy                                                        | Development of a system for the mitigation of plasma disruptions in DTT, based on the flattening of cryogenic pellets                                                                     | No                             | Yes                 |
| 57    | Lorenzo Bramucci              | Università di Padova-Centro Ricerche Fusione, Italy                                | Modelling and Analysis of the MAST-U divertor: opportunities toward the design of an innovative divertor for AEC and DEMO                                                                 | No                             | Yes                 |
| 58    | Lorenzo Mila                  | University of Cagliari, Italy                                                      | Speeding up beam simulations with Physics-Informed Neural Networks: a proof-of-concept approach to solve the Poisson equation for negative ion beam simulations                           | No                             | Yes                 |
| 59    | Lorenzo Sacaro                | Università di Padova-Centro Ricerche Fusione, Italy                                | Physics-informed deep learning neural networks models for real-time control of tearing instabilities in magnetic confinement fusion experiments                                           | No                             | Yes                 |
| 60    | Luca Orlandi                  | Università di Padova-Centro Ricerche Fusione, Italy                                | Development of machine learning methods to detect and resolve faults in plasma diagnostics                                                                                                | No                             | Yes                 |

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Poster session 2: 15:00 - 16:30

| Panel | Name                       | Affiliation                                                                           | Topic of your PhD project                                                                                                                                               | Oral presentation (PechaKucha) | Poster Presentation |
|-------|----------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------|
| 1     | Luigi Cacciapuoti          | University of Tuscia, Italy                                                           | CODAC                                                                                                                                                                   | No                             | Yes                 |
| 2     | Luigi Perico               | École Polytechnique Fédérale de Lausanne (EPFL) - Swiss Plasma Center, Switzerland    | Motional Stark spectroscopy for current distribution determination in the plasma core                                                                                   | Yes                            | Yes                 |
| 3     | Luisa Holmér               | Technical University of Denmark, Denmark                                              | Assessing the influence of magnetic materials on the magnetic field of stellarators                                                                                     | Yes                            | Yes                 |
| 4     | Manuel Mátics              | HUN-REN Centre for Energy Research, Hungary                                           | Defining operation parameters and developing a parahydrogen catalyst for hydrogen pellet injector                                                                       | No                             | Yes                 |
| 5     | Manuelo Casasso            | Commissariat à l'Energie Atomique, France                                             | Simulation numérique du transport dans les plasmas de bord en configuration stellarator par une méthode éléments-fins d'ordre élevé Galerkin discontinue                | No                             | Yes                 |
| 6     | Marco Neri                 | Consorzio ORATEL, Università degli Studi di Napoli Federico II - Università di Padova | Learned 3D MHD Equilibria in Tokamak Finite Elements                                                                                                                    | Yes                            | Yes                 |
| 7     | maria damiano              | University of Rome Tor Vergata                                                        | GENUOS neutron facility                                                                                                                                                 | Yes                            | Yes                 |
| 8     | Matthew Warner             | University of Manchester, United Kingdom                                              | Crytal plasticity modelling and uncertainty quantification for fusion materials, Project 1B1c: Integrated computational risk assessment for fusion materials            | Yes                            | Yes                 |
| 9     | Mattia Benvicqua           | Università di Padova-Centro Ricerche Fusione, Italy                                   | Advanced electronics for signal acquisition and signal processing for fusion-wise experiments                                                                           | No                             | Yes                 |
| 10    | Max Parker                 | Coventry University                                                                   | Novel multiscala modelling of turbulence and transport barriers in magnetic confinement fusion plasmas                                                                  | No                             | Yes                 |
| 11    | Michael Crabbe             | University of Manchester, United Kingdom                                              | Fusion Engineering Scaled Experimental Platform for Magnetically Confined Fusion Process Emulation and Digital Twin Integration                                         | Yes                            | Yes                 |
| 12    | Michal Odložilík           | Czech Technical University in Prague, Czech Republic                                  | Reconstruction of Kinetic Profiles with Neural Networks and Their Application to Fusion Research                                                                        | Yes                            | Yes                 |
| 13    | Miguel Heflin              | University of Basel                                                                   | Boronization studies for ITER wall conditioning                                                                                                                         | Yes                            | Yes                 |
| 14    | Mohamed Amin Inani         | Bologna University                                                                    | Radiofrequency Analysis of Power Combination in Novel, DTT, CRH, MW level, Solid-state Amplifiers                                                                       | No                             | Yes                 |
| 15    | Momonko Kato               | University of Padova                                                                  | High Voltage insulation in the Neutral Beam Injectors for Fusion Reactor                                                                                                | Yes                            | Yes                 |
| 16    | Morgana Maria Trisone      | Politecnico di Milano, Italy                                                          | Design of innovative protective coating for liquid metal corrosion mitigation in nuclear applications via High Power Impulse Magnetron Sputtering                       | No                             | Yes                 |
| 17    | Naharali Omel Ramirez Soto | University of Manchester, United Kingdom                                              | TEM characterization of irradiation creep in RAFM steels                                                                                                                | No                             | Yes                 |
| 18    | Noel Bundschuh             | University of Liverpool, United Kingdom                                               | Optimizing the Exhaust Performance via Magnetic Geometry in Advanced Divertors                                                                                          | No                             | Yes                 |
| 19    | Ondřej Baerž               | Institute of Plasma Physics Prague, Czech Republic                                    | Magnetic field of fusion reactors                                                                                                                                       | No                             | Yes                 |
| 20    | Philipp Zenz               | Fusion@DAW, Austria                                                                   | Modeling effects of 3D magnetic perturbation on plasma rotation in tokamaks                                                                                             | No                             | Yes                 |
| 21    | Qiannan Sun                | University of Oxford, United Kingdom                                                  | Irradiation tolerance of high temperature superconducting leads, coils, joints, and associated magnet components                                                        | No                             | Yes                 |
| 22    | Qingyan Hu                 | Istituto per la Scienza e la Tecnologia dei Plasmi (ISTP - CNR Milano), Italy         | Optimization of DTT operation scenarios                                                                                                                                 | No                             | Yes                 |
| 23    | Quentin Bernier            | EPFL - Swiss Plasma Center                                                            | Fusion physics in the TCV tokamak                                                                                                                                       | Yes                            | Yes                 |
| 24    | Rachael O'Connell          | University of York, United Kingdom                                                    | AI-Assisted high-Resolution Rate Development of European XFEL                                                                                                           | No                             | Yes                 |
| 25    | Rachele Ciconi             | Università di Padova-Centro Ricerche Fusione, Italy                                   | Integrated modelling and plasma control                                                                                                                                 | No                             | Yes                 |
| 26    | Rahul Banks                | University of Manchester, United Kingdom                                              | Permeation resistant, novel ceramic materials for the fusion fuel cycle                                                                                                 | Yes                            | Yes                 |
| 27    | Ralph Kaur                 | CEA Cadarache                                                                         | Numerical modeling of highly radiated plasma scenarios for WEST and JET-9                                                                                               | No                             | Yes                 |
| 28    | Rebecca Giulia Novara      | Università degli Studi di Milano-Bicocca, Italy                                       | Simulations of Fast Ion and Alpha Particle Confinement in Burning Plasma Experiments: Orbit Loss Mechanisms, Instabilities and Surface Power Loads                      | No                             | Yes                 |
| 29    | Ren Elmira                 | École Polytechnique Fédérale de Lausanne (EPFL) - Swiss Plasma Center, Switzerland    | Study of plasma instabilities and magnetic field                                                                                                                        | No                             | Yes                 |
| 30    | Riccardo Brambilla         | Endhoven University of Technology, The Netherlands                                    | W7X neutronics simulation for new neutron diagnostics with application to fast ion confinement                                                                          | Yes                            | Yes                 |
| 31    | Rick van Schalk            | Endhoven University of Technology, The Netherlands                                    | Speeding up tokamak core-edge integrated modelling with SOL surrogate models                                                                                            | No                             | Yes                 |
| 32    | Robert Leisner             | UK Atomic Energy Authority, United Kingdom                                            | 2D Solid State Hydrogen Isotope Transport                                                                                                                               | No                             | Yes                 |
| 33    | RODICA NIHEI MEIKI         | Charles University in Prague, Czech Republic                                          | Low-temperature plasma processes for applications in sustainable technologies                                                                                           | No                             | Yes                 |
| 34    | Rushyva Naidu              | University of Liverpool                                                               | Multiphysics Data-Driven Validation Framework for Component Qualification in Fusion                                                                                     | No                             | Yes                 |
| 35    | Sabli Vallure              | SCX CNR Belgian Nuclear Research Centre, Belgium                                      | Verifiability of advanced EU-developed steels                                                                                                                           | No                             | Yes                 |
| 36    | Sam King                   | Durham University, United Kingdom                                                     | Superconductivity for fusion applications                                                                                                                               | No                             | Yes                 |
| 37    | Samuel Hoek                | University of York, United Kingdom                                                    | Fully-ionized inductive disruption of spherical tokamaks for power plants                                                                                               | No                             | Yes                 |
| 38    | Sanah Hussain              | University of Basel                                                                   | Plasma wall interaction in fusion reactors                                                                                                                              | Yes                            | Yes                 |
| 39    | Sara Molinari              | Consorzio RFX - Università di Padova                                                  | Composite test insertable probes for the high time and space resolved characterization of edge plasma equilibrium and fluctuation properties in the RFX-mod2 experiment | No                             | Yes                 |
| 40    | Shavi Gupta                | University of Basel                                                                   | Radio-frequency plasma cleaning for ITER diagnostic test mirrors                                                                                                        | No                             | Yes                 |
| 41    | Shashwathi Sangeevan       | University of Sheffield                                                               | Understanding Micro-Breeder Performance via Multiscale Material Modelling of Tritium with Interfaces in Vanadium Alloys                                                 | Yes                            | No                  |
| 42    | Simone Kaldas              | University of Rome Tor Vergata                                                        | Machine Learning Methods for Tokamak Diagnostics Data Processing                                                                                                        | Yes                            | Yes                 |
| 43    | Sophia Broekers            | Endhoven University of Technology, The Netherlands                                    | Operational Availability as a Benchmark in Fusion Replication                                                                                                           | Yes                            | Yes                 |
| 44    | Sveeda Narfua Abdul Anis   | University of Manchester, United Kingdom                                              | Lithium isotope separation: a theoretical approach for material design                                                                                                  | No                             | Yes                 |
| 45    | Time Baekens               | Endhoven University of Technology, The Netherlands                                    | Preferential neutronics for neutron design                                                                                                                              | No                             | Yes                 |
| 46    | Tommaso Fontana            | University of Tuscia, Italy                                                           | The design of integrators for DTT magnetic measurements                                                                                                                 | Yes                            | Yes                 |
| 47    | Vandhavai Munugan          | Max Planck Institute for Plasma Physics, Germany                                      | ECH power deposition studies using ICE radiometers                                                                                                                      | Yes                            | Yes                 |
| 48    | Valentina D'Agostino       | University of Rome Tor Vergata, Italy                                                 | Design and implementation of the bolometric diagnostic for DTT                                                                                                          | Yes                            | Yes                 |
| 49    | Vladimir Smith             | Czech Technical University in Prague, Czech Republic                                  | Cooling channels for high heat flux cooling in fusion applications                                                                                                      | Yes                            | Yes                 |
| 50    | Warren Smith               | Durham University, United Kingdom                                                     | High-Purity Superconductors in Fusion Energy Tokamaks under Extreme Strain                                                                                              | No                             | Yes                 |
| 51    | William Ruffen             | Endhoven University of Technology, The Netherlands                                    | Digital engineering of future stellarator reactors                                                                                                                      | No                             | Yes                 |
| 52    | William Rudrum             | University of Manchester, United Kingdom                                              | Atomic Modelling of retention and transport of Tritium in Liquid Tritium and candidates for the structural materials for a breeder blanket                              | No                             | Yes                 |
| 53    | William Seelye             | UK Atomic Energy Authority, United Kingdom                                            | Turbulent transport of tritium in the tokamak                                                                                                                           | No                             | Yes                 |
| 54    | Yahya Nasir                | Durham University, United Kingdom                                                     | Superconductivity                                                                                                                                                       | Yes                            | Yes                 |
| 55    | Yousang Wang               | Department of Physics, University of Basel                                            | Development of the RF plasma cleaning techniques for ITER diagnostic mirrors                                                                                            | No                             | Yes                 |
| 56    | Zwei Li                    | SCX CNR Belgian Nuclear Research Centre, Belgium                                      | Small Punch Test for Nuclear Structural Materials                                                                                                                       | No                             | Yes                 |
| 57    | Sebastian Konewko          | Ghent University, Belgium                                                             | Kinetic modelling of edge plasmas                                                                                                                                       | No                             | Yes                 |