

PhD Research Award

European Physical Society Plasma Physics Division PhD Research Award

The Plasma Physics Division of the European Physical Society (EPS) grants annually up to four prizes to young scientists from the 38 European countries associated with the EPS in recognition of truly outstanding research achievements associated with their PhD study in the broad field of plasma physics.

Previous award winners

Year	Winner(s)
------	-----------

2023	Luis Gil (Instituto Superior Tecnico, Universidade de Lisboa, Portugal) for his thesis on “Stationary ELM-free H-mode in ASDEX Upgrade”
------	--

	Maurizio Giacomin (Swiss Plasma Center, EPLF, Lausanne, Switzerland) for his thesis on “Turbulent transport regimes in the tokamak boundary”
--	---

	Livio Verra (Technical University Munich, Germany) for his thesis on “Electron Bunch Seeding of the Self-Modulation Instability in Plasma”
--	---

	David Hosking (University of Oxford, UK) for his thesis on “The decay of MHD turbulence and the primordial origin of magnetic fields in cosmic voids”
--	--

2022	Plamen Ivanov (University of Oxford, UK) for his thesis on “Zonally dominated dynamics and the transition to strong turbulence in ion-scale plasma turbulence”
------	---

	Alexis Marret (Sorbonne University & Observatoire de Paris-PSL, France) for his thesis on “The non-resonant streaming instability: from theory to experiment”
--	--

	Valeria Perseo (University of Greifswald) for her thesis on “Impurity flow measurements with Coherence Imaging Spectroscopy at Wendelstein 7-X”
--	--

	Martina Salvadori (University of Rome “La Sapienza”) for her thesis on “Advanced time-of-flight diagnostics for real-time characterization of ions accelerated by high energy lasers”
--	--

2021	Audrey Chatain (Université Paris-Saclay, France) for her thesis on “Aerosols-plasma interaction in Titan’s ionosphere”
------	---

	Alexandra Dudkovskaia (University of York, United Kingdom) for her thesis on “Modelling neoclassical tearing modes in tokamak plasmas”
--	---

	Mario Galletti (University of Lisbon, Portugal) for his thesis on “High contrast front-end for a petawatt laser system designed for electron acceleration & High intensity laser-matter applications towards advanced compact particle accelerators”
--	---

Andrea Pavone (Technical University of Berlin) for his thesis on “Machine learning approximation of bayesian inference in nuclear fusion”

2020 **Archie Bott** (University of Oxford) for his thesis on “Magnetic-field amplification in turbulent laser-plasmas”

Bart Ripperda (KU Leuven University) for his thesis on “On magnetic reconnection and particle acceleration in relativistic plasmas”

Kevin Verhaegh (University of York) for his thesis on “Spectroscopic investigations of detachment on TCV: Investigating the role of atomic physics on the ion current rollover and the dynamics of detachment in TCV ”

Rogério Jorge (EPFL and University of Lisbon) for his thesis on “A moment-based model for plasma dynamics of arbitrary collisionality”

2019 **Giada Cantono** (Université Paris-Saclay and Università di Pisa) for her thesis on “Relativistic plasmonics for ultra-short radiation sources”

Eleanor Tubman (University of York) for her thesis on “Magnetic field generation in laser-plasma interactions”

Francisco Javier Artola Such (Université Aix-Marseille) for his thesis on “Free-boundary simulations of MHD plasma instabilities in tokamaks”

Michael Faitsch (Ludwig-Maximilians-Universität München) for his thesis on “Divertor Power Load Studies at ASDEX Upgrade and TCV”

2018 **Matteo Falessi** (Roma Tre University) for his thesis on “Gyrokinetic theory for particle transport in fusion plasmas”

Jack Hare (Imperial College London) for his thesis on “High energy density magnetic reconnection experiments in colliding carbon plasma flows”

Adrien Leblanc (University of Paris-Saclay) for his thesis on “Plasma mirrors and plasma gratings under ultra-intense laser illumination: high-order harmonic generation, and relativistic electron beams”

Wei Zhang (Ghent University) for his thesis on “Plasma edge modeling with ICRF coupling”

2017 **Justin Ball** (Oxford University, UK) for his study of the effect of plasma boundary shape on driving intrinsic rotation in the tokamak, and more generally on the confinement properties

Luca Fedeli (Pisa University, Italy) for his study of surface plasmons, which are excited by intense laser pulses at a vacuum-plasma interface

Toon Weyens (Univ. Carlos III de Madrid, Spain, and Eindhoven University of Technology, Netherlands) for his study of a key aspect of toroidal plasma stability, the effects of non-axisymmetric fields on peeling-ballooning stability

2016 **Bastien Bruneau** (LPICM, FR) for his PhD thesis on the *Control of radio frequency capacitively coupled plasma asymmetries using Tailored Voltage Waveforms*

Arnaud Colaitis (CELIA, FR) for his PhD thesis on a *multiscale description of the Laser-Plasma Interaction, application to the physics of shock ignition in Inertial Confinement Fusion*

Natasha Jeffrey (U. Glasgow, UK) for her PhD thesis on *the spatial, spectral and polarization properties of solar flare X-ray sources*

2015 **Bruno Albertazzi** (LULI, France) for his PhD thesis on *Plasmas Lasers et Champs Magnétiques*

Joaquim Loizu (EPFL, Switzerland) for his PhD thesis on *The role of the sheath in magnetized plasma turbulence and flows*

Michael Rack (Düsseldorf Univ., Germany) for his PhD thesis on *Influence of resonant magnetic perturbations on transient heat load deposition and fast ion losses*

2014 **Edmund Highcock** (Oxford Univ., UK) for his PhD thesis on *The zero turbulence manifold of fusion plasmas*

2013 **Frederico Fiúza** (IST, Portugal) for his PhD thesis on *Multi-scale PIC modeling of high energy density scenarios: from laboratory to astrophysics*

Elena Nedanovska (QUB, UK) for her PhD thesis on *Thomson scattering from technological plasmas*

Lidia Piron (Padua, Italy) for her PhD thesis on *Improved feedback control of MHD instabilities and error fields in reversed-field pinch and tokamak*

István Pusztai (Chalmers, Sweden) for his thesis *Turbulent and neoclassical transport in tokamak plasmas*

[Editorial](#)

2012 **Bart Hennen** (TU Eindhoven, The Netherlands) for his PhD thesis on *Feedback control for magnetic island suppression in tokamaks*

Frédéric Pérez (LULI, France) for his PhD thesis on *Study of supra thermal electron transport in solid or compressed matter for the fast-ignitor scheme*

Jochen Waskoenig (Queen's University of Belfast, UK) for his PhD thesis on *Numerical simulations of the electron dynamics in single and dual radio-frequency driven atmospheric pressure plasmas and associated plasma chemistry in electro-negative He-O₂ mixtures*

[Editorial](#)

2011 **Stefan Kneip** (Imperial College London, UK) for his PhD thesis on *Laser Plasma Accelerator and Wiggler*

Felix Julian Schulze (Ruhr-University Bochum, Germany) for his PhD thesis on *Electron heating in capacitively coupled radio frequency discharges*

Mierk Schwabe (Max-Planck Institute for Extraterrestrial Physics, Germany) for her PhD thesis on *Dynamical effects in fluid complex plasmas*

[Editorial](#)

2010 **Xavier Davoine** (LOA, France) for his PhD thesis on *Accélération de particules par interaction laser-plasma dans le régime relativiste*

Guilhem Dif-Pradalier (CEA/IRFM, France) for his PhD thesis on *First principle description of collisional gyrokinetic turbulence in tokamak plasmas*

Emeric Falize (CEA/DIF, France) and **Bérénice Loupias** (LULI, France) for their complementary PhD thesis on, respectively *Similitudes et autosimilarité en physique des*

hautes densités d'énergie : Application à l'astrophysique de laboratoire and Etude expérimentale de la formation et de la propagation de jets de plasma créées par un laser de puissance : application à l'astrophysique de laboratoire

Peter Manz (Stuttgart University, Germany) for his PhD thesis on *Structure formation in drift-wave turbulence*

[Editorial](#)

2009 **Cedric Thaury** (CEA/IRAMIS, France) for his PhD thesis on *Génération d'harmoniques d'ordres élevés sur miroir plasma*

Ian Chapman (UKAEA, UK) for his PhD thesis on *Modelling the Stability of the $n = 1$ Internal Kink Mode in Tokamak Plasmas*

Tilmann Lunt (IPP Garching, Germany) for his PhD thesis on *Experimental Investigation of the Plasma-Wall Transition*

[Editorial](#)

2008 **Ivo Classen** (TU Eindhoven, The Netherlands) for his thesis *Imaging and control of magnetic islands in tokamaks*

Brendan Dromey (Queen's University of Belfast, UK) for his thesis *Bright soft X-ray harmonic radiation*

Louise Willingale (Imperial College London, UK) for her thesis *Ion acceleration from high intensity laser plasma interactions: Measurements and applications*

2007 **Navid Mahdizadeh** (Stuttgart University, Germany) for his PhD thesis on *Investigation of three-dimensional turbulent structures in the torsatron TJ-K*

Yannick Glinec (LOA, France) for his PhD thesis on *Propagation of an ultra-intense laser pulse in an under-dense plasma: Production of quasi monoenergetic electron beams and development of applications*

Oliver Arp (Christian-Albrechts-University Kiel, Germany) for his PhD thesis on *Coulomb balls – structure and confinement of spherical dust crystals in a plasma*

Alexander G.R. Thomas (Imperial College London, UK) for his PhD thesis on *Studies of laser propagation and mono-energetic electron beam injection in laser wakefield accelerators*

2006 **Stuart P.D. Mangles** (Imperial College London, UK) for his PhD thesis on *Measurements of Relativistic Electrons from Intense Laser Plasma Interaction*

Kristel Crombé (Ghent University, Belgium) for her PhD thesis on *Spectroscopic Studies of Impurity Ion Dynamics on the JET and TEXTOR tokamaks*

Paolo Piovesan (Padova University, Italy) for his PhD thesis on *Experimental MHD Studies of Enhanced Confinement Reversed-Field Pinch Plasmas*

Ben Liesfeld (FSU Jena, Germany) for his PhD thesis on *A Photon Collider at Relativistic Intensities*

2005 **Bruno Gonçalves** (IST, Portugal) for his PhD thesis on *Statistical Properties of Turbulence: a New Approach to Characterize Transport in Fusion Plasmas*

Pavel Popovich (EPFL, Switzerland), for his PhD thesis on *Low Frequency Electromagnetic Wave Propagation in 3D Plasma Configurations*

* content missing

* content missing

* content missing