



Ranking List for the PhD program in **Enegetics** 39th Cycle Second session

Total number of ordinary positions available in second session: 48

Total number of positions reserved to boursaries of Governments or by national or foreign public bodies, available in second session: 0

Summary tab of scholarships available in second session:

4	University scholarships	Scholarships withown research topic
1	ALSTOM - Hydrogen Fuel Cell propulsion trains Traction batteries: new horizons of CBM (Condition Based Maintenance)	Scholarship with predefined research topic
1	ALSTOM - Hydrogen trains: adaptive algorithms for section consumption forecast	Scholarship with predefined research topic
1	ALSTOM - The new challenge of hydrogen: from production to use and its performance	Scholarship with predefined research topic
1	DENERG - Modelling for safe hydrogen injection and management for European gas network resilience and decarbonization	Scholarship with predefined research topic
1	DENERG - Sustainable production routes for hard-to-abate industries	Scholarship with predefined research topic
1	ENEA - Detailed in-operando analysis of SOFC operating with bio-syngas: evaluation of the simultaneous impacts of organic and inorganic contaminants	Scholarship with predefined research topic
1	ENEA - Multi-physics model and energy performance analysis of high pressure water electrolysis systems with anionic polymeric membrane technology	Scholarship with predefined research topic
1	ENEA - Upscaling e ottimizzazione tecno-economica di tecnologie di upgrading e metanazione del biogas	Scholarship with predefined research topic
1	EURAC - Assessing the impact of AI-based intelligent services for enhancing the smartness of next generation grid-interactive buildings	Scholarship with predefined research topic
1	FBK - Proton conductive ceramic cells for FC/EL and for compression / separation (N2, cracking NH3, H2/H2O)	Scholarship with predefined research topic
1	INRIM - Construction and metrological validation of digital models (digital twins) for materials and energy storage devices	Scholarship with predefined research topic
1	MUR DM 117 - Analysis & assessment of the acoustic quality at the operator's position on off-road vehicles (tractors,construction site machines,buses,trucks)	Scholarship with predefined research topic
1	MUR DM 117/AddFor - Innovative solutions for the smart control of electrified Connected and Autonomous Vehicles (CAVs)	Scholarship with predefined research topic
1	MUR DM 117/Cogne Acciai - Optimization of energy consumption and carbon footprint of industrial processes for automotive steel components	Scholarship with predefined research topic
1	MUR DM 117/Convergent Science - Flex-fuel IC engine modeling and optimization for carbon-free mobility	Scholarship with predefined research topic

Nucleo Dottorato di Ricerca

Politecnico di Torino - Corso Duca degli Abruzzi 24, 10129 - Torino, Italia

Tel. +39 011 090 6095

scudo@polito.it - www.polito.it



**Politecnico
di Torino**

Nucleo
Dottorato di Ricerca

1	MUR DM 117/Edison - Technical and economic assessment of Long-Duration Energy Storage (LDES) options for the energy markets	Scholarship with predefined research topic
1	MUR DM 117/ENI - Design and optimization of Triply Periodic Minimal Surfaces as heat sinks for the cooling of high heat-flux components in fusion reactors	Scholarship with predefined research topic
1	MUR DM 117/Ethos Energy - Design and optimization of gas turbine components for safe use of hydrogen/methane fuel blends	Scholarship with predefined research topic
1	MUR DM 117/GI - Advanced Materials, Manufacturing Techniques, and Lifecycle Assessment to Reduce Levelized Cost of Green Hydrogen	Scholarship with predefined research topic
1	MUR DM 117/GI - CFD modeling, design and 50W AEM test stack	Scholarship with predefined research topic
1	MUR DM 117/GI - Enhancing the energy efficiency of solar-water purification technology for green hydrogen production	Scholarship with predefined research topic
1	MUR DM 117/GI - Integration of solar-water purification technologies and electrochemical technologies for sustainable fuels and water purification	Scholarship with predefined research topic
1	MUR DM 117/Morfo Design - Virtual Engine Model Development for Multi-Scale High-Fidelity Simulation of Component and Fluid/Structure Interaction	Scholarship with predefined research topic
1	MUR DM 117/Newcleo - Development of a subchannel code for full-core thermal-hydraulic analysis of lead-cooled fast reactors	Scholarship with predefined research topic
1	MUR DM 117/Newcleo - Experimental and numerical study of a bayonet tube heat exchanger for decay heat removal in LFR	Scholarship with predefined research topic
1	MUR DM 117/Punch - NUMERICAL INVESTIGATION OF H ₂ -AIR MIXTURE FORMATION IN INNOVATIVE GREEN-HYDROGEN DIRECT-INJECTION ENGINES	Scholarship with predefined research topic
1	MUR DM 117/Stellantis - Analysis on components/systems and LCA on cells for EV batteries	Scholarship with predefined research topic
1	MUR DM 117/Stellantis - Modeling and experimental validation on test bench of innovative PEMFC stack for mobility applications	Scholarship with predefined research topic
1	MUR DM 117/Stellantis - Multiscale model for innovative battery cells (Li-metal and LiS cells)	Scholarship with predefined research topic
1	MUR DM 117/Vulkan - System-level analysis and energy management strategy design for marine hybrid powertrains	Scholarship with predefined research topic
1	MUR DM 117/Westinghouse - Advanced Uncertainty Quantification and Propagation Analysis to Support Lead Fast Reactor Development	Scholarship with predefined research topic
1	MUR DM 118 - Design and multi-physics modeling of 20 T superconducting magnets for particle accelerators and for fusion machines	Scholarship with predefined research topic
1	MUR DM 118 - Development of Enabling Technologies for Rotating Detonation Engines for a Greener Propulsion	Scholarship with predefined research topic
1	MUR DM 118 - Development of a digital twin for the operation of MW-class gyrotrons for plasma heating and current drive in fusion reactors	Scholarship with predefined research topic
1	MUR DM 118 - Development of self-consistent edge-core coupled transport models for impurities in Tokamaks	Scholarship with predefined research topic
1	MUR DM 118 - H ₂ -based power units for zero-equivalent mobility solutions	Scholarship with predefined research topic
1	MUR DM 118 - Modeling Post-Carbon Cities and Renewable Energy Communities	Scholarship with predefined research topic
1	MUR DM 118 - Modelling of laser-matter interaction for the sustainable energy production by nuclear fusion	Scholarship with predefined research topic

Nucleo Dottorato di Ricerca

Politecnico di Torino - Corso Duca degli Abruzzi 24, 10129 - Torino, Italia

Tel. +39 011 090 6095

scudo@polito.it - www.polito.it





1	MUR DM 118 ex 351 - Tritium Technologies for the SORGENTINA-RF Facility	Scholarship with predefined research topic
1	PNRR - Innovative processes and materials for long-term thermal energy storage	Scholarship with predefined research topic
1	PNRR - Techno-economic and environmental analysis of the role of low-carbon fuels in the design of future energy systems	Scholarship with predefined research topic
1	Università Tor Vergata/Denerg - Use of Artificial Intelligence Techniques for the Optimization of Innovative Solar Cell Production	Scholarship with predefined research topic

Number of positions without scholarship available for the second session: 2

SHORTLISTED CANDIDATES

User	Score	Eligibility to scholarship with predefined research topic	Waiving right to scholarship	Allocated scholarship	Notes
F524530	85	---	---	Ateneo	---
F520497	84,8	MUR DM 118 - Development of Enabling Technologies for Rotating Detonation Engines for a Greener Propulsion	---	MUR DM 118 - Development of Enabling Technologies for Rotating Detonation Engines for a Greener Propulsion	Conditional admission *
F446164	84,1	MUR DM 117/Vulkan - System-level analysis and energy management strategy design for marine hybrid powertrains	---	MUR DM 117/Vulkan - System-level analysis and energy management strategy design for marine hybrid powertrains	Conditional admission *
F403178	83,6	MUR DM 117/Newcleo - Experimental and numerical study of a bayonet tube heat exchanger for decay heat removal in LFR	---	MUR DM 117/Newcleo - Experimental and numerical study of a bayonet tube heat exchanger for decay heat removal in LFR	---
F460199	83,1	EURAC - Assessing the impact of AI-based intelligent services for enhancing the smartness of next generation grid-interactive buildings	---	EURAC - Assessing the impact of AI-based intelligent services for enhancing the smartness of next generation grid-interactive buildings	---
F463267	82,8	FBK - Proton conductive ceramic cells for FC/EL and for compression / separation (N ₂ , cracking NH ₃ , H ₂ /H ₂ O)	---	FBK - Proton conductive ceramic cells for FC/EL and for compression / separation (N ₂ , cracking NH ₃ , H ₂ /H ₂ O)	Conditional admission *
F513283	82,3	MUR DM 118 - Development of self-consistent edge-core coupled transport models for impurities in Tokamaks	---	MUR DM 118 - Development of self-consistent edge-core coupled transport models for impurities in Tokamaks	Conditional admission *
F395926	80,1	MUR DM 118 - Design and multi-physics modeling of 20 T superconducting magnets for particle accelerators and for fusion machines	---	MUR DM 118 - Design and multi-physics modeling of 20 T superconducting magnets for particle accelerators and for fusion machines	---
F462755	79,3	Università Tor Vergata/Denerg - Use of Artificial Intelligence Techniques for the Optimization of Innovative Solar Cell Production	---	Università Tor Vergata/Denerg - Use of Artificial Intelligence Techniques for the Optimization of Innovative Solar Cell Production	Conditional admission *



User	Score	Eligibility to scholarship with predefined research topic	Waiving right to scholarship	Allocated scholarship	Notes
F423109	78,7	DENERG - Modelling for safe hydrogen injection and management for European gas network resilience and decarbonization	---	DENERG - Modelling for safe hydrogen injection and management for European gas network resilience and decarbonization	Conditional admission *
F531711	78,6	MUR DM 118 - Development of a digital twin for the operation of MW-class gyrotrons for plasma heating and current drive in fusion reactors	---	MUR DM 118 - Development of a digital twin for the operation of MW-class gyrotrons for plasma heating and current drive in fusion reactors	Conditional admission * **
F532963	77,4	---	---	Ateneo	---
F402125	77,1	MUR DM 118 - H2-based power units for zero-equivalent mobility solutions	---	MUR DM 118 - H2-based power units for zero-equivalent mobility solutions	Conditional admission *
F246309	76,3	MUR DM 118 ex 351 - Tritium Technologies for the SORGENTINA-RF Facility	---	MUR DM 118 ex 351 - Tritium Technologies for the SORGENTINA-RF Facility	---
F423189	76	MUR DM 117/Edison - Technical and economic assessment of Long-Duration Energy Storage (LDES) options for the energy markets	---	MUR DM 117/Edison - Technical and economic assessment of Long-Duration Energy Storage (LDES) options for the energy markets	Conditional admission *
F505072	75,8	MUR DM 117/GI - Enhancing the energy efficiency of solar-water purification technology for green hydrogen production MUR DM 117/GI - Integration of solar-water purification technologies and electrochemical technologies for sustainable fuels and water purification	---	MUR DM 117/GI - Enhancing the energy efficiency of solar-water purification technology for green hydrogen production	---
F531263	75,7	ENEA - Multi-physics model and energy performance analysis of high pressure water electrolysis systems with anionic polymeric membrane technology	---	ENEA - Multi-physics model and energy performance analysis of high pressure water electrolysis systems with anionic polymeric membrane technology	---
F528131	75,5	MUR DM 118 - Modelling of laser-matter interaction for the sustainable energy production by nuclear fusion	---	MUR DM 118 - Modelling of laser-matter interaction for the sustainable energy production by nuclear fusion	Conditional admission *
F525899	75,4	ENEA - Detailed in-operando analysis of SOFC operating with bio-syngas: evaluation of the simultaneous impacts of organic and inorganic contaminants	---	ENEA - Detailed in-operando analysis of SOFC operating with bio-syngas: evaluation of the simultaneous impacts of organic and inorganic contaminants	Younger applicant prevails Conditional admission *
F378172	75,4	ENEA - Upscaling e ottimizzazione tecno-economica di tecnologie di upgrading e metanazione del biogas	---	ENEA - Upscaling e ottimizzazione tecno-economica di tecnologie di upgrading e metanazione del biogas	---



User	Score	Eligibility to scholarship with predefined research topic	Waiving right to scholarship	Allocated scholarship	Notes
F531140	75,3	DENERG - Sustainable production routes for hard-to-abate industries	---	DENERG - Sustainable production routes for hard-to-abate industries	Younger applicant prevails Conditional admission *
F513302	75,3	---	---	Ateneo	---
F380217	75	---	---	Ateneo	---
F509694	74,5	---	---	---	Conditional admission *
F528843	74,3	---	---	---	---
F463783	72,8	PNRR - Techno-economic and environmental analysis of the role of low-carbon fuels in the design of future energy systems	---	PNRR - Techno-economic and environmental analysis of the role of low-carbon fuels in the design of future energy systems	Conditional admission *
F462829	69,1	DM 117/ENI - Design and optimization of Triply Periodic Minimal Surfaces as heat sinks for the cooling of high heat-flux components in fusion reactors	---	DM 117/ENI - Design and optimization of Triply Periodic Minimal Surfaces as heat sinks for the cooling of high heat-flux components in fusion reactors	Conditional admission *
F505537	67,5	MUR DM 117/Stellantis - Analysis on components/systems and LCA on cells for EV batteries	---	MUR DM 117/Stellantis - Analysis on components/systems and LCA on cells for EV batteries	---
F526186	65,8	PNRR - Innovative processes and materials for long-term thermal energy storage	---	PNRR - Innovative processes and materials for long-term thermal energy storage	---
F525301	65,2	MUR DM 117/AddFor - Innovative solutions for the smart control of electrified Connected and Autonomous Vehicles (CAVs)	---	MUR DM 117/AddFor - Innovative solutions for the smart control of electrified Connected and Autonomous Vehicles (CAVs)	---
F446291	65	MUR DM 117/Punch - NUMERICAL INVESTIGATION OF H2-AIR MIXTURE FORMATION IN INNOVATIVE GREEN-HYDROGEN DIRECT-INJECTION ENGINES	---	MUR DM 117/Punch - NUMERICAL INVESTIGATION OF H2-AIR MIXTURE FORMATION IN INNOVATIVE GREEN-HYDROGEN DIRECT-INJECTION ENGINES	---
F530442	63,4	MUR DM 117/Westinghouse - Advanced Uncertainty Quantification and Propagation Analysis to Support Lead Fast Reactor Development	---	MUR DM 117/Westinghouse - Advanced Uncertainty Quantification and Propagation Analysis to Support Lead Fast Reactor Development	Conditional admission *
F466311	60	ALSTOM - The new challenge of hydrogen: from production to use and its performance	---	ALSTOM - The new challenge of hydrogen: from production to use and its performance	Conditional admission *

Candidates selected for a position, who have already met all admission requirements (see art. 6, paragraph 1 of the call for applications) as of 30th September 2023, must enroll online through the Apply procedure from 2nd October 2023 to 8th October 2023 and must make identification at the Ph.D. Unit from 9th October to 20th October 2023.

Nucleo Dottorato di Ricerca

Politecnico di Torino - Corso Duca degli Abruzzi 24, 10129 - Torino, Italia

Tel. +39 011 090 6095

scudo@polito.it - www.polito.it



**Politecnico
di Torino**

Nucleo
Dottorato di Ricerca

Candidates selected for a position, who meet all the admission requirements (see art. 6, paragraph 1 of the call for applications) on 31st October 2023, must enroll online through the Apply procedure **from 2nd November 2023 to 8th November 2023** and must make identification at the Ph.D. Unit from **9th November to 15th November 2023**.

Applicants admitted to a Ph.D. programme with a scholarship pursuant to **Ministerial Decree no. 117** and **Ministerial Decree no. 118** are required to enrol according to the deadlines that will be communicated by the Ph.D. Unit directly to the interested, in order to fulfil the obligations provided by the above-mentioned Decrees.

ELIGIBLE CANDIDATES

No candidate

Description of Notes field:

* Conditional admission: because the Master Degree is not yet acquired. The eventual enrollment to a PhD program could take place only if the Master Degree is achieved within **31st October 2023**. The failure of achievement by the deadline would result in the irrevocable loss of the right to enroll.

** Conditional admission: because the English certificates required to enrol in a PhD programme is not yet acquired.

In case of admission in a PhD programme, the candidate will be allowed to enrol only if submitting **by and no later than 31st October 2023**) one among the certificates required, pursuant to art. 6, paragraph 1, letter b) of the call for admission. The failure to submit the certificate shall entail the loss of the right to enrolment.

Torino, 14/09/2023

Nucleo Dottorato di Ricerca
Politecnico di Torino - Corso Duca degli Abruzzi 24, 10129 - Torino, Italia
Tel. +39 011 090 6095
scudo@polito.it - www.polito.it

