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Research Master in Fluid Dynamics Academic Year 2025-2026

Extraordinary experimental facilities ranging from subsonic to hypersonic Advanced computational methods / High performance computing / Machine learning Master-after-Master level / Top-level research / Great career opportunities





Environmental Flows & Applied Fluid Dynamics Department

Liquid Metals & Industrial Flow
Thermal Management and Process Safety
Wind Energy & Environmental Flows
Aeroacoustics & Aerodynamics

Aeronautics & Aerospace Department

Propellant Management Aerothermodynamics Aerothermochemistry Rarefied & Plasma Flows Aeronautics & Aerospace

Turbomachinery and Propulsion Department

Hypersonic Propulsion
Turbine Aerodynamics
Compressor Aerodynamics
Power-to-X Solutions

Transversal Units

Shape Optimization
Instrumentation & Measurement Techniques
CFD and Numerical Methods
Machine Learning
Emergent Quantum Computing



Info session registration and application for the research master program on www.vki.ac.be

secretariat@vki.ac.be - +32 (0)2 359 96 04 Application deadline - 1 April 2025

No tuition fee / Fellowships available for citiziens of contributing countries

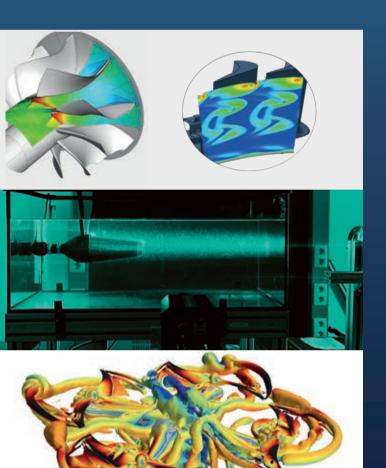
Belgium, Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Iceland, Italy, Luxembourg, Norway, Portugal, Romania, Türkiye,
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APPLY NOW!

VON KARMAN INSTITUTE FOR FLUID DYNAMICS Short Training / Master Thesis Programs

Extraordinary experimental facilities ranging from subsonic to hypersonic Advanced computational methods / High performance computing / Machine learning Top-level research / Great career opportunities



Subjects of projects

Environmental and Applied Fluid Dynamics

- Environmental processes: wind effects on buildings, vehicle aerodynamics, wind energy, noise mitigation, pollutant dispersion, deicing techniques, atmospheric flows
- Industrial processes: heat transfer, multiphase flows
- Non-intrusive instrumentation (PIV, LDV, LIDAR)
- Cryogenics and plasma flows
- Turbulence modelling

Aeronautics and Aerospace

- Aerodynamics: from subsonic to hypersonic speeds
- Aeroacoustics: noise measurement and simulation
- Planetary entry simulations, thermal protection systems
- Physics of high-speed flows and related diagnostics
- Computational methods, modelling & uncertainty quantification
- Plasma flows, ablation, gas-surface interactions

Turbomachinery and Propulsion

- Gas turbines, scram jets, rotating detonation engines, turbo-reactors, axial/radial compressors and turbines, pumps
- H2 propulsion and hybrid energy systems
- Measurement techniques, computational modeling, emergent quantum computing
- Aerodynamics, heat transfer, fluid-structure interaction
- Component design and multi-disciplinary optimization



ONLINE INFO SESSION ON 4 FEBRUARY 2025 AT 1PM

Info session registration and application to the programs at any time on www.vki.ac.be secretariat@vki.ac.be, +32 (0)2 359 9604

*Fellowships available for citiziens of Belgium, Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Iceland, Italy, Luxembourg, Norway, Portugal, Romania, Türkiye, The Netherlands and The United States of America

