## APPLY NOW!

VON KARMAN INSTITUTE FOR FLUID DYNAMICS

# Research Master in Fluid Dynamics Academic Year 2023-2024

Extraordinary experimental facilities ranging from subsonics to hypersonics Master-after-Master level / Top-level research / Great career opportunities



Decarbonization

**Industrial Flows** 

Aerospace

Wind Technology



Turbomachinery

Aeronautics

Propulsion



Online Info Session on 7 February 2023
Application on www.vki.ac.be

secretariat@vki.ac.be - +32 (0)2 359 96 04 Application deadline - 1 April 2023

No tuition fee / Fellowships available for citiziens of contributing countries

Belgium, Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Iceland, Italy, Luxembourg, Norway, Portugal, Romania, Turkey,
The Netherlands, The United States of America

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VON KARMAN INSTITUTE FOR FLUID DYNAMICS

## **Short Training / Master Thesis Programs**

Extraordinary experimental facilities ranging from subsonics to hypersonics



### 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**

- Aeronautical flows from subsonic to hypersonic speeds
- Aeroacoustics: noise measurement and simulation
- Space applications: planetary entry, thermal protection
- Computational methods and uncertainty quantification
- Advanced modeling: plasma flow, gas-surface interaction

#### **Turbomachinery and Propulsion**

- Scope: scram jets and rotating detonation engines, gas turbines, axial & radial compressors and turbines, wind turbines
- H2 propulsion and hybrid energy systems
- -Measurement techniques, computational modeling, machine learning
- Aerodynamics, heat transfer, fluid-structure interaction
- Component design and multi-disciplinary optimization



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