Max-Planck-Institut für Dynamik und Selbstorganisation

Max Planck Institute for Dynamics and Self-Organization

For the research group on Turbulence and Wind Energy lead by Dr. Claudia Brunner we seek to fill a

Postdoctoral Position (m/f/x) in Experimental Fluid Dynamics

The Max Planck Institute for Dynamics and Self-Organization is an international research institute in Göttingen, Germany. It performs both experimental and theoretical fundamental scientific research and currently employs about 300 people.

The research

Wind turbines are often grouped together in wind farms that cover large areas of land and sea. Due to the close spacing, wakes from upstream turbines influence downstream turbines, thereby reducing their power output. We study the fundamental fluid dynamics associated with wind turbine wakes and turbine-turbine interactions with the aim of optimising the efficacy of wind farms. The fundamental challenge in the study of wind turbines lies in the large separation of scales, which is represented by the Reynolds number. We conduct our research in the Max Planck Variable Density Turbulence Tunnel, which uses compressed SF_6 to achieve very high Reynolds numbers at low velocities. We use Lagrangian particle tracking and hot-wire velocimetry to sample the flow. In addition, we develop next-generation hot-wire technology for atmospheric turbulence measurements. Atmospheric turbulence affects wind turbine performance, as well as weather and climate processes. It is notoriously difficult to study because conventional sensors are fragile, costly and lack spatial resolution. We develop robust hot-wires for use in harsh outdoor environments.

Your profile

We are looking for an enthusiastic and self-motivated early-career researcher with good communication skills to join our team. Research experience in experimental fluid dynamics is beneficial, but not required. The candidate should have:

- a PhD degree in physics, engineering or a related field
- ability and desire to work in a diverse and international team
- good command of English. German language skills are not required

The Max Planck Society is committed to achieving the highest level of excellence and diversity. Therefore, we particularly encourage applications from women. Furthermore, the Max Planck Society is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals.

Our offer

We offer excellent working conditions in a highly international and interdisciplinary research environment. The position is for one year initially with the possibility of extension. Salary and working hours follow the funding guidelines of the Max Planck Society for scientists: Working hours are fulltime; salary is E13 TVöD-Bund. The starting date is flexible.

Your application

Please apply online with the reference no MPIDS-W069 and submit a cover letter, a CV, and contact information for up to three references. Your cover letter should briefly describe your research interests, relevant experience and career goals. All applications received before **February 15th** will receive full consideration, but the position will remain open until filled.

Please contact
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should you have further questions:
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