

# Center for Turbulence Research



**Postdoctoral Fellowships and  
Visiting Scholars Programs**  
<https://ctr.stanford.edu>



The Center for Turbulence Research (CTR) is a research consortium stimulating significant advances in the physical understanding and modeling of turbulent flows. CTR invites applications to participate in this research enterprise through two Fellowship Programs, the Postdoctoral Fellowships and the Visiting Scholars Programs.

Research of interest to CTR is broadly defined by the involvement or the controlling role of turbulent multiphysics in theory, computation and experiments. Examples include, but are not limited to: turbulent and transitional flows, separated flows, flow-structure interactions, wall roughness effects, hydroacoustics, compressible aerodynamics, hypersonics, high-enthalpy effects, aeroacoustics, multiphase flows, reactive flows, turbulent combustion and propulsion, thermal processes, stratified turbulence, rotating flows, mesoscale and submesoscale processes, wave-turbulence interactions, atmosphere-ocean interactions, sediment transport and morphodynamics, cloud microphysics and indoor/urban fluid dynamics, algorithmic and statistical analysis tools, including subgrid scale and wall modeling for LES of complex flows, uncertainty quantification, multi-fidelity simulations, novel data-mining and data-browsing techniques to enable physics learning from large datasets.

The Center's view is that the key to advances in turbulence is sustained interaction between researchers. It is essential that those working on theoretical aspects of the problem interact with those conducting experimental or computational research, and that a broad range of viewpoints and methods be brought together in a catalytic manner. The essence of the CTR is to provide the central core of this needed critical mass activity. Typically, CTR has about fifteen resident postdoctoral fellows.



The main elements of the Center are an extensive visiting Fellows program with associated technical and professional development activities, a biennial summer program, seminars and workshops, with connections to a core of Ph. D. students and postdoctoral researchers working in related areas. Further details may be found at [ctr.stanford.edu](https://ctr.stanford.edu).



## **FELLOWSHIP AND VISITING SCHOLARS PROGRAMS**

The Center for Turbulence Research sponsors two fellowship programs:

**The Postdoctoral Fellowship:** the postdoctoral fellowship program provides research opportunities for those who have earned a Ph.D. in an appropriate area in the past three years. They are appointed as Postdoctoral Fellows at Stanford.

**The Visiting Scholars Fellowships:** the program sponsors extended visits to the CTR by faculty members and scientists from other universities or government laboratories.

Fellows in either of the categories above can and are expected to interact with CTR scientific staff and faculty members in research projects of mutual interest.

## **APPLICATIONS**

Applications should include a vitae, brief research proposal addressing fundamental questions in multi-physics turbulent flows, names and email addresses of three references, and a graduate transcript (if the applicant is about to graduate or has graduated in the past 2 years). Submission information can be found at <https://ctr.stanford.edu/fellowships>.

Applications for Fellowships are reviewed quarterly, and application material should be on file at the CTR by January 1, April 1, July 1, or October 1.

**Questions?**

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