The **Chair in Nonlinear Dynamics** (lead by Prof. G. Haller) at ETH Zürich has an opening for a Ph.D. position in the general area of **Theory and Computation of Coherent Structures in Turbulent Flow Data.**

Ph.D. position in Theory and Computation of Coherent Structures

The project aims to further develop objective Eulerian and Lagrangian detection algorithms for large coherent structures in stratified turbulence. These stuructures will be located via their boundaries that minimize the transport of some passive scalar (say, a diffusive dye) or some active scalar (say, vorticity or potential vorticity). This effort will join theory, experiments and simulations to develop efficient algorithms for unsteady coherent structure detection in large data sets. Application areas include turbulent flows in engineering devices, in the ocean and in the atmosphere.

The successful candidate has an MSc in engineering, applied mathematics or physics (or equivalent) and has research interest and background in turbulent flows and dynamical systems. She or he has excellent mathematical skills and demonstrated experience with numerical methods. Background in advanced data analysis (image processing, statistical data analysis etc.) is an advantage. The Ph.D. is interested in a scientific career and in interdisciplinary project collaboration and has working knowledge of English. The starting date is negotiable but early starts are preferred. Contract duration is 1 year, renewable multiple times upon satisfactory progress.

We look forward to receiving your online application including a CV, undergraduate and masters transcripts, as well as a motivation letter along with two contacts for reference letters. Please note that we exclusively accept applications submitted through our online application portal. Applications via email or postal services will not be considered.

For further information of research at the Chair in Nonlinear Dynamics, visit www.georgehaller.com or contact Prof. Haller at georgehaller@ethz.ch. (no applications).

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