

PhD position "Tracking zooplankton in turbulent flow": Zurich, Switzerland

At the Chair of Environmental Fluid Mechanics (EFM), Institute of Environmental Engineering, the newly established group of Environmental Fluid Mechanics focuses on organism-flow interactions and particle transport in environmental flows. A PhD student position is available in the frame of an ETH-funded research project "Tracking zooplankton in turbulent flow".

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The project is carried out in close collaboration between EFM and the Photogrammetry group of Prof. Konrad Schindler (ETH-IGP). The goal of the project is to develop new particle tracking techniques to study collective swimming behavior of zooplankton under the influence of turbulent flow. For this, two main aims will be addressed, namely, (1) to develop a new particle tracking method to obtain accurate individual trajectory data, at high densities and during collective motion and (2) to advance our understanding of collective swimming behavior of zooplankton organisms in turbulent flow using laboratory experiments based on high speed 3D PTV.

We expect a MSc in environmental engineering/sciences or physics (or equivalent); research interest in complex systems in hydrodynamics/biology/ecology; interest in a scientific career and in interdisciplinary project collaboration; background on advanced data analysis (image processing, statistical data analysis) and programming; good knowledge of English (German is an asset); preferred starting date is January 2014, contract duration is 3 years; acceptance by doctoral program required.

For further information please contact Prof. M. Holzner by e-mail holzner@ifu.baug.ethz.ch (no applications) and visit our website <http://www.ifu.ethz.ch/EFM/>

Applications with motivation letter, cv, diplomas along with two contacts for reference letters should be sent online with attention to: ETH Zurich, Mrs. Corina Niescher, Human Resources, CH-8092 Zürich