



## **1 Senior Researcher Position in Thermal Remote Sensing 2 PhD Positions in Thermal Remote Sensing**

We invite applications for a senior researcher position as well as two PhD positions in thermal remote sensing of aquatic and terrestrial ecosystems.

The University of Zurich (UZH) Remote Sensing Laboratories jointly with Eawag aquatic research are established research institutions with a strong focus on all aspects of remote sensing.

TRISHNA (Thermal infrared Imaging Satellite for High-resolution Natural resource Assessment) is an upcoming satellite mission jointly developed by the French (CNES) and Indian (ISRO) space agencies and to be launched in 2025. The scientific objectives of the mission are monitoring of the water status and stress of continental ecosystems, monitoring of coastal and inland waters, the urban environment, and applications to solid Earth, the cryosphere and the atmosphere. UZH/Eawag will contribute to the TRISHNA mission through the European Space Agency (ESA) PRODEX scheme and is seeking to expand their team and expertise.

The project will contribute to the improvement of the physical understanding of energy-matter interactions using TRISHNA simulations and measurements. In particular, thermal anisotropy models and measurements will be employed to advance the understanding of directional reflectance and emission signals in rugged terrain. Aquatic and terrestrial reference test sites will be used for calibration and validation of TRISHNA data and products. Synergy with other missions by including their products and/or validation schemes is achieved by comparative analysis.

The successful applicants will be based in Zurich and Dubendorf and are embedded in a supervisory team including Michael Schaepman, Daniel Odermatt, Alexander Damm and Gabriela Schaepman-Strub. You will work in the Department of Geography, Evolutionary Biology and Environmental Studies (UZH) and/or nearby Eawag, which hosts a surface water remote sensing research group as well as several aquatic researchers with a strong interest in using remote sensing data products.

To apply, PhD candidates must have a completed Master's degree (Senior Scientist: PhD degree) in either physics, environmental science, (big-) data analysis, remote sensing, quantitative geography, computer science or a closely related science field. Applicants must be willing to work with scripting languages, models, and simulations. Experience in performing extended field work under harsh conditions is an asset. Candidates are expected to work in a team and with large, international consortia. A high standard of written and spoken English is mandatory and the ability to speak French an asset. The positions start as soon as suitable candidates are found. Salaries correspond to the UZH regulations of Senior Scientist / PhD salaries. The Senior Scientist (T-SEC Senior) will be co-supervising the PhD students and acting as project manager, besides regular scientific tasks. PhD1 (T-SEC PhD1) will primarily focus on modelling thermal directional radiation for energy budget applications. PhD2 (T-SEC PhD2) will focus on calibration/validation of thermal products, with special attention to space-time variability and heterogeneity.

We are looking for highly motivated, enthusiastic and independent persons with a passion for fundamental science, experiments and field work to join our team. We offer outstanding working conditions, a high quality of life in Zurich, and an excellent support environment.

Please send your complete application (indicate position: T-SEC Senior, T-SEC PhD1, T-SEC PhD2) (composed of a motivation letter, complete CV, and names of 2 referees; compiled in one single pdf) to [sandra.altorfer@geo.uzh.ch](mailto:sandra.altorfer@geo.uzh.ch). Selection of candidates will begin 18 February 2021. Preferred starting date in Zurich is April 2021 or upon agreement. For further questions, please contact [michael.schaepman@geo.uzh.ch](mailto:michael.schaepman@geo.uzh.ch) or [daniel.odermatt@eawag.ch](mailto:daniel.odermatt@eawag.ch).