



**SPRINGS**



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Cultural Organization

## Climate and Health Impact Modelling

Postdoctoral fellowship  
starting fall 2024



### Horizon Europe Project SPRINGS

The Earth System Physics (ESP) section of the Abdus Salam International Centre for Theoretical Physics (ICTP) seeks applications for a 2y postdoctoral position, renewable for an additional year subject to performance, starting October 2024, from an outstanding early career scientist with a strong research record of accomplishment.

This post-doctoral position is linked to the **HORIZON-HLTH-2023-ENVHLTH-02** Project **SPRINGS GA 101137255** [<https://springs-f7155b-b6a868f7552045db3be86384.webflow.io/>] about “**Supporting Policy Regulations and Interventions to Negate aggravated Global diarrheal disease due to future climate Shocks**” funded by the European Union Horizon programme, with **Dr. Cyril Caminade as Principal Investigator** at ICTP. SPRINGS aims to improve integrated climate and health surveillance, create climate-resilient water supply systems, engage citizens and stakeholders, and use evidence-based value assessments to prioritize interventions to prevent climate-induced diarrhoeal disease. SPRINGS started on 1 January 2024 and will run until December 2029. SPRINGS aims to model the impact of global climate change on local water quality and diarrhoeal disease outcomes. Water-borne diarrhoeal diseases such as cholera, giardiasis, campylobacteriosis and cryptosporidiosis, are a leading cause of mortality for children under 5y of age globally.

The selected postdoctoral researcher is expected to carry out active, independent and multidisciplinary research in the broad area of climate and water-borne disease modelling. The applicant will use observed clinical data and environmental data to develop water-borne disease models of different complexity (SEIR,  $R_0$ , climate envelope, fuzzy logic...) for Europe and Africa. Models will then be employed to estimate future transmission risk under different climate change scenarios and provide recommendations to EU health policy makers. Secondary tasks might involve working on vector-borne disease modelling.

Candidates should have a background in some of the following disciplines:

- Epidemiological modelling
- Ecology
- Climate sciences
- Disease modelling

Following skills will be preferred:

- Working in an inter-disciplinary environment
- Communication
- Teamwork

- Proficiency in a programming language adapted to epidemiological modelling (R, Python, Fortran...)
- Strong analytical skills
- Good spoken and written English
- Independence and critical thinking

This position is in the Earth System Physics (ESP) section in the broad areas of ***climate and health impact modeling***. The ESP section provides a vibrant international research environment with an intense programme of workshops and conferences. Postdoctoral fellows are also encouraged, and supported, to participate in activities in developing countries in order to promote the mission of ICTP. The ICTP takes seriously its commitment to equal opportunity and diversity in hiring, and in its global mission to promote science in the developing world. The applicant will be involved and will interact with the SPRINGS inter-disciplinary consortium that includes experts in water quality, climate modeling, disease modeling, hydrology, clinical science and biology.

Applicants must have completed a PhD in climate dynamics, epidemiology or mathematical modeling prior to the start of this post-doctoral position. Priority consideration, at equal competence in the aforementioned research areas, will be given to candidates who obtained their PhD after 2022.

ICTP offers internationally competitive remuneration and a number of benefits. Appointment will ideally start on the 1<sup>st</sup> of Oct 2024 and end on the 31<sup>st</sup> of April 2027. Candidates should apply through the ICTP online application system.

**For further information please contact:** Dr. Cyril Caminade (ccaminad@ictp.it)

**Application deadline: 31 August 2024.** Please note that only short-listed candidates will be contacted by e-mail after the selection process (mid -Sep).

- Contact emails: [esp@ictp.it](mailto:esp@ictp.it); [ccaminad@ictp.it](mailto:ccaminad@ictp.it)
- Application, <https://e-applications.ictp.it/applicant/login/4038>