

Postdoctoral Research Associate in Atmospheric Modeling of Mercury and Other Toxic Metals

Location: Ljubljana, Slovenia

Institution/Department: Meteorological Synthesizing Centre – East, Department of Environmental Sciences (O-2, www.environment.si), Jožef Stefan Institute

Department Address: Reactor Center, Brinje 40, 1262 Dol pri Ljubljani ([map](#))

Start Date: Summer-Fall 2024 (flexible)

Duration: The position will initially be granted for one year with the option of prolongation.

Description:

Meteorological Synthesizing Centre – East (MSC-E), hosted by the Department of Environmental Sciences at the Jožef Stefan Institute (Ljubljana, Slovenia), is one of the research centers of the EMEP scientific program operating under the UNECE Convention on Long-Range Transboundary Air Pollution. The Centre conducts cutting-edge research and operational simulations of environmental dispersion of toxic substances on both European and global scales, with a focus on atmospheric and multi-media modeling of toxic metals and persistent organic pollutants (POPs). Comprehensive assessments provided by MSC-E on pollution trends within specific regions and countries, coupled with its assessments of transboundary pollution, serve as valuable tools for policymakers to gauge the success of pollution control measures.

MSC-E invites applications for a Postdoctoral Research Associate in modelling atmospheric pollution with mercury and other toxic metals. The successful candidate will join a scientific group of the Centre focused on the development and application of chemical transport models for pollution assessment.

Primary Objectives and Responsibilities:

- Update and further develop the modeling approaches of the GLEMOS chemical transport model for simulating atmospheric pollution with toxic metals such as mercury, lead, and cadmium;
- Conduct model assessments of toxic metal dispersion in the atmosphere and their deposition to terrestrial and aquatic ecosystems across the European region and globally;
- Analyze modeling data and disseminate results through annual reports, journal publications and presentations at conferences.
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Qualifications:

- PhD or equivalent degree in atmospheric sciences, environmental science or other related fields (physics, chemistry, applied mathematics, etc.);
- Proficiency in programming languages commonly used in environmental modeling (Fortran, Python, etc.);
- Experience in scientific computing, numerical modelling and working with high performance computing systems (HPC);
- Demonstrated expertise in data analysis and interpretation of model output.
- Ability to work both independently and collaboratively in a multidisciplinary research environment;

- Fluency in written and spoken English.

Application Materials:

- Curriculum vitae (CV);
- Cover letter outlining research interests, relevant experience, and career goals;
- A complete list of publications that demonstrate high-quality, independent and continuous research activity;
- Contact information for three professional references.

Position / Salary: H019007 Scientific associate; annual gross salary 33.552 €.

Contact Information: For further information, please contact Dr. Oleg Travnikov, Jožef Stefan Institute, e-mail: oleg.travnikov@ijs.si.