



Researcher - carbon sequestration verification system (extension II)

The Finnish Meteorological Institute produces observation and research data on the atmosphere, the near space and the seas, as well as weather, sea, air quality and climate services for the needs of public safety, business life and citizens. The Finnish Meteorological Institute is an administrative branch of the Ministry of Transport and Communications.

The Carbon Cycle group of the Climate System Research unit seeks an enthusiastic and motivated researcher to participate in the development of FMI's carbon sequestration verification system for agricultural fields, forests and other terrestrial ecosystems. Our verification system is based on Predictive Ecosystem Analyzer (PEcAn: <https://pecanproject.github.io/>), a state-of-the-art ecological bioinformatics toolbox, and consecutive applications.

Researcher's main task is to develop the carbon sequestration verification system under the guidance of a senior researcher in a vibrant research team. Our methods involve Bayesian analysis and other computation/numerical methods, such as uncertainty analysis, calibration, data assimilation. A basic familiarity with these concepts is essential. Proficiency in R and GitHub version control is needed.

The candidate should have experience in programming, basic knowledge of R-programming, and, first and foremost, enjoy scientific calculation system development. Demonstrated ability and willingness to learn advanced methods are highly advantageous.

Expected qualifications

- Master's degree or equivalent studies in a suitable field (e.g. physics, mathematics, statistics, meteorology, computational science, agricultural and forest sciences, environmental sciences)
- Programming skills (R and Github)
- Fluent spoken and written English
- Interest in working internationally, including conferences and research visits abroad
- Ability to work independently and as part of a research group
- Good interaction and communication skills

Other desirable qualifications are

- Doctoral degree
- Experience in ecological, plant, soil, agriculture, forest or land surface models
- Earlier experience in scientific software development
- Experience in R shiny and postgresql
- Experience in Bayesian inference and computational methods
- Experience in high performance computing and containerization systems
- Experience in scientific research about terrestrial ecosystems and climate change
- Track record on successful completion of research projects
- Proven skills in scientific writing
- Good organizational skills



We offer

The researcher position is placed in the Carbon Cycle Group of the Climate System Research unit (<https://en.ilmatieteenlaitos.fi/climate-system-research>). The Carbon Cycle Group studies interactions between the atmosphere, vegetation and soil. The group uses different modelling tools and measurements, and the studies' spatial scale ranges from the site level to the global scale. Your work will be supported by our friendly research team, flexible working hours and diverse benefits.

The position is located at the FMI head office in Kumpula, Helsinki. The position is two-year temporary employment and work will begin 1 December 2021 or as agreed, as soon as possible and will last until 31 November 2023 (with a possible extension). The position includes a probationary period of two months in the beginning. Salary is based on experience and performance according to the FMI salary scale at level 10 to 12. The total gross salary in the beginning of the work will be about 3000 to 3900 euros per month. The researcher is required to participate in international research, including scientific conferences and research visits abroad.

For more information, please contact Chief Scientist, Research Professor Jari Liski, jari.liski@fmi.fi or tel. +358 40 748 5088 or Senior Researcher Istem Fer, istem.fer@fmi.fi.

To apply, please submit a short application letter and your CV with a description of your possible Github repository and a description of your studies, contact details of one to three reference persons, and possibly a publication list to [valtiolle.fi](https://www.valtiolle.fi) by 18 October, 2021 at 12 noon (EET): <https://www.valtiolle.fi/en-US/Vacancy?id=31-154-2021> You can submit the application in Finnish or English language.

You must register and create an account to [Valtiolle.fi](https://www.valtiolle.fi) recruiting system before leaving your application. Login prefer using the Edge browser. The system user guide: https://www.valtiolle.fi/en-US/Working_for_The_Government/Guide

