

Atmospheric scientist



HOURS: Full time; **LOCATION :** Leiden, The Netherlands

Are you our new colleague?

Are you an ambitious, highly motivated, and result driven (postdoctoral) scientist with experience interpreting atmospheric observations (using transport modelling) ? Then you are the person we are looking for.

Your position

Reducing methane emissions has become an absolute priority of global climate policy. Satellites have been both a catalyst and prime supporter of these reductions by revealing large emission hot spots around the world, which are urgent mitigation targets. SRON has been at the forefront of this revolution by providing key data and analysis. SRON is the co-Principal Investigator Institute for TROPOMI, a Dutch instrument realised together with ESA and launched in October 2017. SRON's responsibilities include the development and maintenance of the operational algorithms for methane and carbon monoxide. We have various research projects with high-impact stakeholders focusing on methane emissions using the TROPOMI satellite data, also in conjunction with high spatial resolution satellites like GHGSat, Sentinel-2, EnMAP, and VIIRS that allow us to pinpoint emissions to individual facilities, enabling mitigation efforts. You will analyse TROPOMI and other satellite data to study methane emissions around the world to contribute to actionable insights on large super-emitters.

Your team

You will be part of our team of scientists working on the interpretation of methane satellite data in the Earth Science Group (ESG) of SRON. The ESG consists of approximately 35 scientists (permanent staff, postdocs, and PhD students) that work on the interpretation of satellite data, data processing, as well as the development of new instrumentation. Our team (~15 persons) develops methods to detect and identify sources and quantify emissions of various trace gases using satellite data in conjunction with atmospheric modelling. Our research addresses topics with large societal relevance.

Your project

You will join the SRON team that contributes to the United Nations' impactful IMEO Methane Alert and Response System (MARS). The team uses long-term TROPOMI analysis to localise methane hot spots around the world. This information is then used to zoom-in with high spatial resolution satellite instruments (e.g. VIIRS, Sentinel-2, EnMAP) with targeted observations or data analysis to identify the responsible sources. For example, we use the global coverage provided by VIIRS and Sentinel-3 to pinpoint transient sources detected with TROPOMI. IMEO then notifies responsible parties to mitigate the emissions. The work involves emission quantification, monitoring of emissions, improvement of our research methodologies, and increasing our understanding of super-emitters. The project also includes in-depth studies (e.g. using inverse modelling) on key emission sources at open-pit coal mines as prioritised by IMEO MARS. The work is done in close collaboration with the

IMEO MARS-team at UNEP. You will present your work to various stakeholders as well as at scientific conferences, and publish your work in scientific peer-reviewed journals.

Position requirements

We are looking for an ambitious, highly motivated, and result driven scientist with a PhD in atmospheric sciences or a similar degree, with experience in the interpretation of atmospheric (e.g. satellite, aircraft) observations (using transport models). Strong programming and data analytics skills are also expected. Experience with research on atmospheric methane and flux inversions is considered an asset. A highly developed proficiency in written and oral English is essential and the candidate should be capable of working both independently and in a team.

What we offer

The position we offer at SRON is full-time for a period of two years with the possibility of a two-year extension. You will be employed by NWO-I (Foundation for Dutch Scientific Research Institutes). The collective labor agreement for research institutions applies. Salary will depend on education and experience but will not exceed €5758,- gross per month (The position is based in Leiden, The Netherlands).

NWO-I has good secondary employment conditions such as:

- An end-of-year bonus of 8,33% of the gross yearly salary;
- A holiday allowance of 8% of the gross yearly salary;
- 42 days of vacation leave per year on a full-time basis;
- Compensation for commuting expenses;
- An excellent pension scheme;
- Options for (additional) personal development;
- Excellent facilities for parental leave;
- Ample training opportunities;
- Possibility of flexible working hours;

More information & contact

Visit www.sron.nl for more information about our scientific research, technology, expertise, missions and facilities. Applications, CVs and any portfolios for this position will be considered via the application form for this vacancy at www.werkenbijSRON.nl, until the vacancy is filled.

For further information about the content of the position, please contact Prof. dr. Ilse Aben (E.A.A.Aben@sron.nl) or Dr. Bram Maasakkers (j.d.maasakkers@sron.nl). Applications submitted through our website www.werkenbijSRON.nl before 25 July will be treated with priority, position will remain open until filled.

We do not appreciate acquisition in response to this vacancy.

About SRON

Space Research Organisation Netherlands (SRON) enables breakthroughs in international space science. We develop technology and instruments for missions of the future and conduct research in the fields of astrophysics and atmospheric sciences. SRON works closely with leading international partners such as ESA, NASA and JAXA, as well as with companies from the space and high-tech industry. We support Dutch and international researchers in participating in space missions and in the effective use of mission data. As the national institute for space research, SRON coordinates the Netherlands' participation in ESA's science programme and collaborates closely with Dutch universities, other NWO institutes, industry partners and government agencies to advance a cohesive national agenda for space-based research.

Your place at SRON

At SRON, we believe that a diverse workforce in terms of gender, age and cultural background is essential for conducting excellent research. We therefore encourage all qualified candidates to apply.

Online interviews and online screening may be part of the selection procedure.