Research scientist to lead the development of new methods to quantify greenhouse gas emissions from industrial facilities based on in-situ atmospheric measurements

LSCE : Laboratoire des Science du Climat et de l'Environnement

Context:
Comprehensive information about greenhouse gas emissions is essential for decision makers to track the effectiveness of emission control policies in the context of the Paris Agreement on Climate. To answer that need, LSCE launches new research program known as TRACE (http://trace.lsce.ipsl.fr) funded for four years by the French National Research agency and corporate partners THALES ALENIA SPACE, SUEZ and TOTAL. The TRACE program will develop new GHG emissions measurement methods, going from the scale of industrial sites up to national and global CO_2 and CH_4 budgets, using satellite-mounted infrared spectrometers instruments and arrays of low-cost sensors deployed in situ, on the surface, around emitting industrial sites.

Job description - Responsibilities and tasks:
- Organize the research activities of the TRACE project dealing with the monitoring of greenhouse gas emissions from industrial facilities using in-situ atmospheric measurements and low-cost sensors,
- Ensure an efficient day-to-day management of TRACE activities related to emissions from industrial facilities in relation with corporate partners Total and Suez
- Coordinate the data acquisition strategy, participate to the field campaigns, and promote the collaborative analysis of the results with academic and corporate scientists,
- Work with LSCE researchers and co-supervise staff from the project (two persons) for organizing field campaigns at industrial facilities with atmospheric sensors,
- Lead and contribute to the writing of peer-reviewed publications with the results from TRACE,
- Contribute to research projects connected to the objectives of TRACE,
- Promote the project results at international conferences and initiatives (e.g. IG3IS)

Required skills/experience:
- Knowledge in atmospheric science, and methods to estimate GHG emissions using measurements and models, with a special focus on CH_4
- Expertise on GHG sensors and field measurements, tracer dispersion models, inverse methods
- Programming (ideally in Fortran, Python and R),
- Leadership and ability to work collaboratively with a team of researchers and engineers,
- Excellent scientific writing skills and track record of peer reviewed publications,
- Previous involvement in research projects,

Education: PhD in climate or atmospheric sciences
Location: Laboratoire des Science du Climat et de l'Environnement (https://www.lsce.ipsl.fr)
Contract duration: Up to 48 months
Starting date: The position is available from Jan 2018 and will remain open until filled.
Salary: Salary includes full social and health benefits, adjusted for work experience.
How to apply: Applicants should submit a complete application package by email to: contact-trace@lists.lsce.ipsl.fr The application package should include (1) a curriculum vitae including most important recent publications, (2) statement of motivation and (3) names, addresses, phone numbers, and email addresses of at least two references.