Job description - Post-doctoral researcher

Impact of Eastern Asian emissions on atmospheric composition and climate in a global climate-aerosol-chemistry model

Laboratoire des Sciences du Climat et de l'Environnement (LSCE)

Gif-sur-Yvette, France

Job description : Air pollution in Eastern Asia and especially in China is an outstanding issue. Until recently, the rapid economic development and urbanization resulted in rising pollutant emissions leading to the largest pollutant concentrations in the world. The objective of the PoleAsia ANR project is to evaluate the present and future impacts of Chinese pollutant emissions on transboundary export of pollutant to the global scale; on the additional radiative forcing of climate induced by the emitted and produced short-lived climate forcers (ozone and aerosols); and on the long-term health consequences of pollution exposure. The *Laboratoire des Sciences du Climat et de l'Environnement (LSCE)* is proposing a grant-holder position to a person to be involved in research activities in our team related to the PoleAsia project. The successful candidate will participate to the further development of the global climate-chemistry-aerosol-vegetation model LMDz-ORCHIDEE-INCA, introduce updated anthropogenic emission inventories of pollutants, and apply the model to investigate the impact of Asian present and future emissions on atmospheric composition and climate. The global model results will first be evaluated against ground based and satellite observations (IASI, MODIS) over Asia over the past decade. LMDz-ORCHIDEE-INCA will then be applied by the candidate to simulate the present and future impact of Asian emissions on transboundary pollution, radiative forcings of climate and impact on mortality. The work will be performed in collaboration with the PoleAsia partners.

Required qualifications : The candidate should hold a PhD degree in physics, chemistry, environmental sciences or equivalent. The highly motivated candidate should be able to demonstrate concrete and meaningful skills in numerical modeling (programming in Fortran, work on LINUX systems, handling of large computer programs and datasets), and have a proven publication record. We will favor candidates with prior experience in atmospheric chemistry/aerosol modeling. A good command of English is also required.

Duration : 18 months.

Preferred starting date: September 2018.

Salary : The salary will be adjusted to work experience according to the CNRS internal salary system and includes full social and health benefits.

Location : The position will be based at *Laboratoire des Sciences du Climat et de l'Environnement (LSCE)* in Gif-sur-Yvette (25 km SW of Paris), France.

How to apply : please send a motivation letter and a CV to Didier Hauglustaine (didier.hauglustaine@lsce.ipsl.fr) and Yves Balkanski (yves.balkanski@lsce.ipsl.fr).