

Two MSc or PhD Positions Available

Two graduate student positions are available under the supervision of Dr. Rachel Chang (<http://fizz.phys.dal.ca/~rachel.chang/>) in the Department of Physics and Atmospheric Science, Dalhousie University, situated in Halifax on the east coast of Canada. Our research is motivated by the need to improve our understanding of the physical and chemical properties of aerosols in coastal, marine and polar regions to identify their sources, transport and effects on climate, in particular through liquid fog and cloud droplets.

The first project will characterize the aerosol particles at the Polar Environment Atmospheric Research Laboratory (PEARL) in Eureka, Nunavut using a variety of techniques. The successful candidate will work under the joint guidance of Dr. Chang and Dr. Patrick Hayes (Université de Montréal) and will run the chemical transport model GEOS-Chem to interpret surface and LIDAR measurements of aerosol properties. Depending on the length of study (MSc vs PhD), further analysis would extend to remote sensing techniques. The start date for this position would be January, May or September 2022.

The second project is part of the international study: Fog and Turbulence Interactions in the Marine Atmosphere (FATIMA) led by the University of Notre Dame. The successful candidate will measure aerosol chemical and physical properties during the summer of 2022 and 2023 off the coast of Atlantic Canada and in the Yellow Sea, respectively, to characterize marine and coastal aerosols, their sources as well as their effects on fog properties. Depending on the length of study (MSc vs PhD), further analysis could extend to include modelling techniques to interpret the observations. The start date for this position would be January or May 2022 to provide sufficient time to be trained on the instruments.

Candidates should hold an undergraduate degree in Physics, Chemistry, Atmospheric Science, Oceanography, Engineering, Mathematics, or a related field. Applications should include a cover letter indicating your motivation and relevant research experience, a detailed curriculum vitae, academic transcripts and the contact information for at least two referees. Applications should be emailed to Dr. Rachel Chang at rachel.chang@dal.ca. The review of applications will commence immediately and continue until the positions are filled.

Dalhousie University is committed to fostering a collegial culture grounded in diversity and inclusiveness. The university encourages applications from Indigenous persons, persons with a disability, racially visible persons, women, persons of a minority sexual orientation and/or gender identity, and all candidates who would contribute to the diversity of our community. For more information, please visit www.dal.ca/hiringfordiversity.