PhD student: Modeling microbial processes in clouds

The group Biometa (Cloud Group) at the Institute for Chemistry (ICCF), University Clermont-Auvergne, is seeking a PhD student to extend existing process models to describe biological processes in clouds.

The research group is the leading group to analyze data from the near-by Puy de Dôme (France) and other locations for biological cloud water and aerosol constituents. The current project will complement these activities by developing models to describe the role of microbiota in clouds on various scales.

Duties:

- Review of existing data on microbial processes in aqueous media; classification of data

- Development of a scheme describing microbial processes to be included in an existing cloud model

- Sensitivity studies with a cloud process model to identify most uncertain parameters and missing data

- Simulation of case studies for scenarios at the Puy de Dôme using process, mesoscale and/or regional models

Qualifications:

- MSc or equivalent in atmospheric science, chemistry or physics or related scientific discipline

- Ability to work with laboratory and field scientists to discuss experimental data

- Background in cloud chemistry, biology and/or physics

- Knowledge of Fortran or other common programming language

- Good command of both written and spoken English

Salary: 1 421 € net salary/month (including social security)

The term of appointment is for three years.

Planned project start is January 1st, 2019 or soon after.

Applicants should upload his/her CV and a letter of motivation to the job portal: https://emploi.cnrs.fr/, and also send them together with the contact details of two references before November 15th to Barbara Ervens (barbara.ervens@uca.fr).