

1 year post-doc in Statistics or Statistical Ecology at AgroParisTech

A one year post-doc position is opened at AgroParisTech for the development of novel statistical methodologies for the analysis of ecological interaction networks.

Project:

The [ANR-17-CE32-0011](#) NGB project is devoted to the biomonitoring of changes in ecosystem structure and function. It mostly focus on the inference, the analysis and the modelling of ecological interaction network to anticipate the response of ecosystems to environmental changes. The ecosystems under study range from the microbial or fungal level to plant-pollinator interaction network.

Statistical issues:

The NGB project raises a series of challenging statistical issues, including

- network inference from (possibly large) abundance dataset, that is the inference of structure of an underlying graphical model based on count data;
- network reconstruction from noisy data, that is the reconstruction of the set of all between species interactions based on mixture samples, or pan-trap data;
- network comparison, that is the distinction of the subset of interactions that remain constant across different environments, as opposed to environmental-dependent ones.

This list is not exhaustive.

Aim:

The aim of the position is to develop new methodologies for the statistical analysis of ecological network. The position is fairly open in terms research directions. It will be the opportunity for the recruited person either to further develop its own researches, in connection with the goals of the NGB projects, or to work on one of the subjects mentioned above. In any case, he/she will acquire a strong experience in statistics and/or statistical ecology.

Context:

The recruited person will work within the statistical group of MIA-Paris (<https://www6.inra.fr/mia-paris>), located at AgroParisTech (16, rue Claude Bernard, Paris, 5e, FRANCE) and will have numerous contacts with the partners lab of the NGB project, mostly in Ecology.

Qualification and experience:

The applicant should possess either a PhD in Statistics with interest for applications in life sciences or a PhD in Ecology with strong modelling components. In both case, a strong experience in network analysis is expected.

Contact:

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Salary: 2150 € before taxes.