

PhD position in Climate-Economy Modelling at Centre d'Economie de la Sorbonne (CES)

CES (Centre d'Economie de la Sorbonne) is looking to recruit a talented and motivated PhD student who will write her/his PhD thesis on the topic of climate-economy modelling in the framework of the ERANET-AXIS project CHIPS.

The CHIPS project (Climate Change Impacts and Policies in Heterogeneous Societies) brings together partners from multiple disciplines to improve state-of-the-art climate-economy integrated assessment models (IAMs) in four ways:

- (i) an improved representation of impacts with a specific focus on poverty- and growth-relevant impact channels like capital and labor productivity, linking directly to data derived from the Intersectoral Impact Model Intercomparison project (ISIMIP¹)
- (ii) an explicit representation of household heterogeneity in integrated assessment models
- (iii) conceptual advances to address multi-level equity considerations and new welfare metrics with a special focus on poverty
- (iv) assessment of the distributional effects of carbon pricing and climate impacts in Europe through empirics and micro-simulation.

The selected candidate will work on better understanding the effect of inequalities on optimal climate policies in an IAM (using the NICE model developed by Dennig et al., 2015). To do the candidate will improve the spatial definition of the model and work on providing better estimates of the income elasticity of climate damages. She/he will have to model various policies according to the distribution of the costs of reducing emissions. She/he will reflect on measures of individual well-being allowing to consider the multiple effects of the climatic change (on income, inequalities, poverty and health).

During this thesis, the successful candidate will use the numerical model NICE, which is written in the Julia language. She/he will analyze results from this model and perform numerical optimization exercises.

The successful candidate must be prepared to become proficient in using and developing a complex integrated assessment model, and use the model to explore different research questions. In addition, she/he must be prepared to think critically and independently about her/his research.

Requirements:

CES is seeking a quantitative, analytical person with a keen and established interest in interdisciplinary and policy-relevant research. The successful applicant must have the ability to further develop his/her aptitude for modelling. Experience with quantitative modelling and programming skills in python and/or Julia and knowledge on climate-related issues are plus.

Candidates should preferably have a Master degree (or equivalent) in economics. Candidates from other fields (engineering, operations research, etc.) may apply but should have some knowledge of economic methods.

Appointment Terms:

The selected candidate is expected to start in September 2019 and will be offered a 3-years PhD contract. The salary offered is about 1750€ per month. She/he will be based at CES and will work in close collaboration with Stéphane Zuber (CES) and Aurélie Méjean (CIRED).

CES (Centre d'Economie de la Sorbonne) is a research unit within Paris School of Economics (PSE), bringing together 93 permanent researchers and 112 PhD students. CES is located at Maison des Sciences Economiques, 106-112 boulevard de l'Hôpital, 75013 Paris. The selected candidate will also closely interact with researchers from CIRED (Centre International de Recherche sur l'Environnement et le Développement).

Application:

Applications should include a detailed *curriculum vitae*, a cover letter outlining motivations for applying, fitness to the position and the contact information of two references.

Applications should be made using the CNRS online system at the following address: <https://emploi.cnrs.fr/Offres/Doctorant/UMR8174-STEZUB-001/Default.aspx?lang=EN>

Review of applications will start immediately and will continue until the position is filled. The appointment will start as soon as the successful candidate is available.

Any enquiry can be sent to Stéphane Zuber: Stephane.Zuber@univ-paris1.fr.