



2013-IPR-G-30-000-1462

Global Sensitivity Analysis

Position for:

CATEGORY 30

The mission of the Econometrics and Applied Statistics Unit is to provide policy monitoring and impact evaluation in areas relevant to progress and stability of the European society. The unit's research on statistical indicators, applied econometrics and sensitivity auditing is used in key policy areas such as growth, competitiveness, lifelong learning, employment, innovation, the internal market and other social dimensions.

The Action "Sensitivity Auditing for Impact Assessment" (SAIA)

builds upon JRC experience in sensitivity analysis to propose the concept of Sensitivity Auditing in support to the Impact Assessment exercises under way within the Commission. SAIA supports the European Commission in analysing the technical robustness and soundness of policy impact assessments and has thus the ambition to improve the quality of the European Commission's regulatory activity and Impact Assessment System.

SAIA hosts a research team whose main objective is to conduct advanced research in the field of uncertainty and sensitivity analysis of model output (UA/SA). UA and SA tools are crucial in simulation modelling by contributing to model development, calibration, validation, reduction and decision-making under uncertainty.

The successful candidate will apply her/his mathematical knowledge in the field of UA/SA with the following duties:

- To investigate, develop and implement new methodologies of global sensitivity analysis.
- To work on meta-modelling techniques
- To use advanced Monte Carlo sampling techniques
- To carry out numerical experiments on benchmark case studies.

The outcome of the research would be the preparation of a number of articles for peer-reviewed international journals.

Qualifications:

The ideal candidate has a Ph.D., preferably in Mathematics, Engineering or Statistics. Any other degree is equally accepted as long as a strong

	<p>background in applied mathematics can be proven. This requirement could otherwise be substituted by a minimum of 5 years full-time research experience, after the first university degree giving access to doctoral studies (PhD), provided that a strong quantitative background can be proved.</p> <p>Required competencies include: applied mathematics, Monte Carlo simulation, numerical modelling, numerical integration, experience with programming (Matlab, R, Fortran, C); a good publication record is definitely an asset.</p> <p>The position requires good knowledge of English (both speaking and writing); Communication skills and capacity of delivering in a structured way respecting strict deadlines; self-motivation; ability to be proactive and work independently or under minimal supervision. Knowledge of additional EU languages is a plus.</p>
Institute Unit Action	<p>Institute for the Protection and Security of the Citizen Econometrics and Applied Statistics SAIA</p> <p>Further information: http://ipsc.jrc.ec.europa.eu/index.php/Organization/158/0/ http://ipsc.jrc.ec.europa.eu/?id=155 http://ipsc.jrc.ec.europa.eu/?id=333</p>
Indicative duration	36 months
Preferred starting date	ASAP
JRC Site	Ispira
Country	Italy
Rules	<p>Grantholders: http://ec.europa.eu/dgs/jrc/downloads/jrc_grantholder_rules.pdf</p>