



2016-IPR-D-40-000-6942

Global Sensitivity Analysis

**Position for:**

GRANTHOLDER  
CATEGORY 40

The Joint Research Centre (JRC) is the European Commission's in-house science service. The Joint Research Centre's mission is to provide EU policies with independent, evidence-based scientific and technical support throughout the whole policy cycle. Working in close cooperation with policy Directorates-General, the JRC addresses key societal challenges while stimulating innovation through developing new methods, tools and standards, and sharing its know-how with the Member States, the scientific community and international partners.

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The current vacancy is in the Econometrics and Applied Statistics Unit. The mission of the 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, sensitivity auditing and counterfactuals is used in key policy areas such as growth, competitiveness, lifelong learning, employment, innovation, the internal market and other social dimensions.

The Unit 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 Global Sensitivity Analysis with the following duties:

- To investigate, develop and implement new methodologies of global sensitivity analysis.
- To work on emulators and other meta-modelling techniques
- To use advanced Monte Carlo sampling techniques for the design of experiments
- To carry out numerical experiments on benchmark case studies.
- To publish the outcome of the research on peer-reviewed international journals
- Contribute to sensitivity analysis for modelling applications of Commission Services.

Required - Qualifications:

The ideal candidate should have a minimum of 10 years of relevant research experience at post-doctoral level or a minimum of 15 years after the first university degree giving access to doctoral studies (PhD).

	<p><u>Other</u></p> <p>The experience would preferably be in Mathematics, Engineering or Statistics. Any other degree is equally accepted as long as a strong background in applied mathematics can be proven.</p> <p>The candidate should possess the following characteristics:</p> <ul style="list-style-type: none"> <li>• Strong expertise in applied mathematics, Monte Carlo simulation, numerical modelling, numerical integration</li> <li>• Wide academic network in the field</li> <li>• Experience with programming (Matlab, Fortran, R, C).</li> <li>• A good publication record in peer reviewed journals.</li> </ul> <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>
<p><b>Directorate</b> <b>Unit</b> <b>Project/Task force</b></p>	<p>Deputy Director General Econometrics and Applied Statistics</p> <p>Further information: <a href="https://ec.europa.eu/jrc/en/samo">https://ec.europa.eu/jrc/en/samo</a></p>
<p><b>Indicative duration</b> <b>Preferred starting date</b></p>	<p>24 months ASAP</p>
<p><b>JRC Site</b> <b>Country</b></p>	<p>Ispira Italy</p>
<p><b>Rules</b></p>	<p>Grantholders: <a href="https://ec.europa.eu/jrc/sites/default/files/jrc_granholder_rules.pdf">https://ec.europa.eu/jrc/sites/default/files/jrc_granholder_rules.pdf</a></p>