Post-doctoral Position

The team METHODS of the Centre de Recherche Epidémiologie et Statistiques/Université Paris Cité-INSERM (CRESS-U1153) is looking for a post-doctoral fellow for the ToROTR project (lead by Francois Petit).

The aim of the ToROTR project is to develop and study topological, geometric and statistical methods to develop optimal treatment rules and evaluate their robustness. This interdisciplinary project encompasses a diverse range of domains, including topological data analysis, causal inference, and machine learning. We warmly welcome applicants from various backgrounds who are eager to learn and explore new topics.

Various questions may be studied within this project, depending on the candidate's expertise.

We are searching for a dedicated candidate with a strong mathematical background and a doctoral degree in mathematics, statistics, or machine learning, who possesses a keen interest in applying their skills to health sciences.

Team: The team METHODS of CRESS, located at Hôtel-Dieu hospital in the center of Paris, is affiliated to Université Paris-Cité and Inserm. It offers a dynamic international research environment.

Activities:
- To develop mathematical or statistical methods
- To program these methods
- To evaluate their properties
- To compare with other state-of-the-art methods
- To apply these methods to real data

Skills:
- Advanced mathematics skills
- Proficiency in programming
- Experience in writing scientific articles
- Autonomy and ability to work in a multi-disciplinary environment

Desirables: Additionally a good knowledge of any of these fields would be highly appreciated
- Topological data analysis
- Reinforcement learning
- Deep Learning (Autoencoder/GAN)
- Conformal prediction
- Optimization
- Data generation

Education level: Doctoral degree in mathematics or (bio-)statistics or computer science or theoretical physics.
Duration: 12 months
Contact: francois.petit@inserm.fr
How to Apply: Your application should include a cover letter with a brief account of your research interests and motivation for applying for the position, a resume and a complete list of publications, the name, and email address of 2 references.

The deadline to apply is the 15^h of September 2023.