

ANR Project SOCOT

2 years post-doctoral position

The [ANR project SOCOT](#) (Stochastic Orders and Constrained Optimal Transport) offers a two years post doctoral position at the [Université de Toulon](#). The contract can start in September 2025 or later.

Research topics. The postdoc is financed by the ANR project SOCOT : the aim of this project is to deepen the understanding of stochastic orders, ubiquitous objects in the mathematics of decision-making, in relation to weak and multimarginal optimal transport problems. Both are important frameworks of generalized mass transport and are vector of new applications. Our team includes analysts, probabilists, specialists of optimization and data scientists.

Among possible research subjects to be addressed, we have in mind : the study of new dynamical formulations for nonlinear optimal transport, the development of new metric structures associated to these new transport, and / or the study of the associated Wasserstein barycenters and their applications.

Location. The selected post-doc will join [Laboratoire Imath](#) (Institut Mathématique de Toulon), located on the Campus La Garde and will collaborate with [Thierry Champion](#) and [Guy Bouchitté](#). Close collaboration with the neighbouring colleagues [Thibault Le Gouic](#) and [Magali Tournus](#) (Institut de Mathématiques de Marseille), as well as other members of the project, is also much encouraged.

Candidate profile. Young researchers interested in working on topics at the boundary between probability, optimization, geometry of Wasserstein spaces and PDEs are encouraged to apply. We are in particular interested in all candidates with a strong background in optimal transport (theory and numerics). We will appreciate candidates with the following skills (optional) : stochastic mass transport, Wasserstein barycenters or convex geometry.

Conditions. The post-doctoral contract can be established for a duration of up to 24 months. The expected starting date is September 2025, however the starting date is flexible and can be adjusted according to the student's constraints. The monthly salary will be of approximately 2300 euros net of charges. The position has no teaching duties. The successful applicant will be entitled to use research funds from the ANR project SOCOT, in particular for visits or invitations.

Requirements. Candidates must hold a PhD in Mathematics obtained at most 3 years before the beginning of the activities.

To apply. Interested candidates are required to send their application to champion@univ-tln.fr

by **April 27th, 2025**, and until the position is filled, with the following documents :
— a cover letter, with the contacts of two researchers who would be willing to write a recommendation letter if needed,
— a CV with the list of their publications (with links to retrieve them on the web),
— a short research statement.

The applications will be evaluated by members of the project. The selection process can include interviews for shortlisted candidates.