

The Faculty of Computer Science at the University of Namur invites applications for a **Postdoctoral Research Associate** to work on the project “On the analysis and design of collective behaviour for robotics swarms using hypergraphs theory”, an interdisciplinary project in which the mathematics of the networks science and hypergraphs theory is used to design and predict the collective dynamics of robotics swarms. This project is a collaboration between Prof Elio Tuci (<https://directory.unamur.be/staff/etuci>), from the Faculty of Computer Science at UNamur, Prof Timoteo Carletti (<https://directory.unamur.be/staff/tcarlett>) from the Department of Mathematics at UNamur, and Dr Andreagiovanni Reina (<https://www.giovannireina.com/>) a FNRS research fellow of the Artificial Intelligence Lab IRIDIA at ULB Belgium.

The appointment will be for one-year renewable for another year, and is based in Namur, Belgium. The candidate will join the Faculty of Computer Science at UNamur and the Namur Institute for Complex Systems, naXys ([www.naxys.be](http://www.naxys.be)), which is active in the field of complex systems, with a broad expertise in the analysis of real-world phenomena, their modelling through mathematics and numerical simulations, and their control and optimisation.

The candidate should have a PhD in sciences (or in a field judged equivalent by the selection committee) with some experience in programming, mathematical modelling and excellent oral/written communication skills in English. French is the official language of the University of Namur. However, knowledge of French is not required to carry out the activities of this project. The candidate should have some experience or interest in modelling collective behaviour and/or network systems. It is also important that the candidate can translate ideas between disciplines, taking ideas from mathematics and implementing them in collective and swarm robotics systems.

The position is open to candidate of any nationality, assuming that they fulfil the following conditions:

- She/he has to hold a PhD with thesis obtained after 1-9-2015 and before 31-08-2021.
- International mobility conditions – this refers to the condition of not having resided or exercised her/his main activity in Belgium for more than 24 months during the last three years immediately preceding the first period of postdoctoral stay (short stays such as holidays, participation in a congress, a short stay in preparation for the postdoctoral stay are not taken into account to verify that this condition is met.
- The candidate may not have previously received more than 24 months of postdoctoral fellowship in Belgium
- The candidate may not have been at UNamur for more than six months at the date of submission of the application

The selected candidate will be offered an internationally competitive salary commensurate with qualifications and experience, an attractive remuneration package, and pension scheme. Funding to cover some of the project operating costs are offered by the University of Namur, which also refunds the first journey to Namur and the last journey back home at the end of the project.

To apply for this position, please send by email a CV, a list of publications, a motivation letter (max length one page), and the names of three referees to Prof Elio Tuci [elio.tuci@unamur.be](mailto:elio.tuci@unamur.be)  
The short-listed candidates will be contacted for an interview by videoconference. We will keep on processing applications as soon as we receive them and until a suitable candidate is found. The earliest starting date is the 01-01-2022. Women and people of underrepresented minority groups are strongly encouraged to apply.

For further information on the project, you can contact:

Prof Elio Tuci – [elio.tuci@unamur.be](mailto:elio.tuci@unamur.be)

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