

Job title	Post-doc in complex networks analysis / theoretical physics
Ref	2018-10-GNETWORKS
Job type (PhD, Post-doc, Engineer)	Post-Doc
Contract duration (months)	24 months
Qualifications (Master degree, PhD...)	PhD
Job hours (full time/ part time)	Full Time
Employer	UBFC – Université de Franche-Comté
Host Laboratory	Institut UTINAM
URL Host Laboratory	https://www.utinam.cnrs.fr
Address Host Laboratory	Institut UTINAM – Université de Franche-Comté - 41 bis avenue de l'Observatoire - BP 1615 -25010 BESANCON CEDEX
Job description	<p>A 1-year post-doc position (renewable for one additional year) is available in the field of complex networks analysis.</p> <p>Many complex systems can be naturally seen as big networks with a great number of interconnected nodes. For example, in living systems, proteins interact amongst each other through chemical reactions; in brain, electrical impulses are exchanged amongst neurons; in social networks, members are related by acquaintances; in world trade, countries export/import products to/from other countries, ...</p> <p>The theoretical physics group of UTINAM institute develops methods for the analysis of complex networks such as Wikipedia articles networks, World Trade network, protein interaction networks, ... The developed methods derive from the Google matrix method which allows to rank efficiently massive information quantities embedded in these complex networks and from the newly developed reduced Google matrix method</p>

	<p>which allows to find hidden interaction between two nodes of a complex network.</p> <p>The UTINAM institute (https://www.utinam.cnrs.fr) is a multidisciplinary research laboratory gathering physicists, astronomers, and chemists and belonging to CNRS (http://www.cnrs.fr) and to the universit� de Franche- Comt� (http://www.univ-fcomte.fr).</p> <p>See also: http://perso.utinam.cnrs.fr/~lages/apex</p>
Supervisor(s)	Lages, Jos� (jose.lages@utinam.cnrs.fr , http://perso.utinam.cnrs.fr/~lages)
Candidate profile	<p>Preference will be given to candidates with a strong background in complex network (theory and analysis). The candidate should possess a PhD in theoretical physics, but candidates with a PhD in an adjacent domain such as mathematics, computer science, and bioinformatics will be also considered.</p> <p>Proficient knowledge of the English and/or French language is required.</p>
Keywords	Complex networks, theoretical physics, Google matrix, Markov chains, statistical physics, big data, data mining.
Application deadline	31/07/2018
Starting Job	1er Octobre 2018
Application <i>Depending on the type of position</i>	<p>Post-doc position Please send the following documents (all in one PDF file) by e-mail to job-application@ubfc.fr:</p> <ol style="list-style-type: none"> 1) For EU candidates: Copy of your national ID card or of your passport page where your photo is printed. For non-EU candidates: Copy of your passport page where your photo is printed. 2) Curriculum Vitae (may include hyperlinks to your ResearchID, Research Gate Google Scholar accounts). 3) Detailed list of publications (may include hyperlinks to DOI of publications). 4) Letter of motivation relatively to the position (Cover Letter) in which applicants describe themselves and their contributions to previous research projects (maximum 2 pages) 5) Copy of your PhD degree if already available. 6) Coordinates of reference persons (maximum 3, at least your master thesis supervisor): Title, Name, organization, e-mail. <p>If you have questions regarding the application, please contact the supervisors.</p>