

Postdoc positions for the project

Learning Synchronization Patterns in Multivariate Neural Signals for Prediction of Response to Antidepressants

Institute of Computer Science CAS in Prague

A new project funded by the *Czech Science Foundation* awarded to Milan Paluš (<http://www.cs.cas.cz/mp/>) in cooperation with scientists from the Czech National Institute of Mental Health and Vienna University, Faculty of Informatics, for the period 2021-2024

is open for applications for positions of postdoctoral researchers.

The project is oriented to mathematical and computational methods for detection, and machine learning-based classification of synchronization and causality in nonlinear multivariate time series. Applications in analysis of EEG describing brain states and their changes in mental disorders (depression), prediction of antidepressant efficacy.

Conditions:

- The initial contract will be for one year with possible extension during the project duration.
- The positions are available immediately or upon agreement.
- **Applications will be reviewed until the positions are filled.**
- This is a full-time fixed term contract appointment.
- Monthly gross salary: 40,000 CZK (postdoc).
[Cost Of Living Comparison](https://www.numbeo.com/cost-of-living/comparison.jsp) (<https://www.numbeo.com/cost-of-living/comparison.jsp>)
- Bonuses and travel funding for conferences and research stays depending on performance.
- No teaching duties.
- Applicants should:
 1. Hold a PhD (PhD. student/research assistant positions available as well, contact M. Paluš) in computer science, mathematical and physical sciences, bioengineering, neurosciences, and proven experience at least in one of the following:
 - Time series** (multivariate, nonlinear) **analysis** with focus on detecting **synchronization, coupling, causality**
 - Complex networks analysis**
 - Brain data processing and modelling**
 - Machine learning**
 2. Have strong data analysis, statistical, mathematical modelling and/or machine learning skills with practical programming experience
 3. Be fluent in English

The applications should be sent to ics@cs.cas.cz and should contain:

Curriculum Vitae. A proof of the obtained degree. Two letters of recommendation. The referees should send their recommendations directly to ics@cs.cas.cz.

Informal inquires can be sent to the principal investigator: Milan Paluš, mp@cs.cas.cz