



Přírodovědecká
fakulta
Faculty
of Science

Jihočeská univerzita
v Českých Budějovicích
University of South Bohemia
in České Budějovice

We are a research campus with a strong tradition in biosciences focused on complex ecological, evolutionary & developmental aspects of LIFE. Faculty of Science, University of South Bohemia in České Budějovice is looking for excellent candidates for **a position for the project**

“Models of eco-evolutionary dynamics of population interaction networks”

Within the European Training Networks project [EvoGamesPlus](#) (Evolutionary Game Theory and Population Dynamics: From Theory to Applications, grant agreement number 955708), carried out between a consortium of 14 EU beneficiaries and 15 partner organisations from all over the world, we are looking for a candidate for a fully funded 3-year position. This position will be hosted by the [Centre for Mathematical Biology](#) at the Faculty of Science, [University of South Bohemia at Ceske Budejovice](#), Czech Republic.

This project focuses on applying evolutionary game theory to create and analyze mathematical models that will integrate ecological and/or epidemiological processes at the behavioural, population, and evolutionary time scales. The ESR will advance the understanding of the dynamics of interaction networks by integrating predator/parasitoid/pathogen and prey/host behaviours with their population dynamics and/or integrating pollinator preferences for plants with plant-pollinator dynamics. S/he will use continuous or individual-based models either in homogeneous or heterogeneous space. S/he will couple these models with either adaptive dynamics or real-time eco-evolutionary dynamics.

The candidate will undergo extensive training within the framework of EvoGamesPlus network and will carry out 3-month secondments at partner organisations (tentatively at University of Szeged, Hungary; University of Liverpool, UK; and Ithaca College, US) . Similarly to the other 14 candidates trained within the EvoGamesPlus project, the offered extensive training will be both domain-specific (led by the experts in the fields of game theory, dynamical systems theory, and related fields who participate in the EvoGamesPlus project) and also in transferrable and complementary skills. For more information about the EvoGamesPlus project, visit www.evogamesplus.eu.

Tasks and responsibilities

- ✓ Undergo extensive training and carry out secondments within the EvoGamesPlus project,
- ✓ Build ecological/epidemiological models spanning behavioral, population, and evolutionary time scales using methods of evolutionary game theory, differential equations, and/or agent based models,
- ✓ Analyze these models,
- ✓ Relate these models to real systems,

- ✓ Present results at top conferences and publish them in high-ranked international journals.

What do we offer

- ✓ Full time employment with competitive salary for three years,
- ✓ Mobility allowance for secondments,
- ✓ Possibility to apply for a PhD programme at the University of South Bohemia (a list of PhD programmes at the Faculty of Science is [here](#))
- ✓ Shared office,
- ✓ English speaking, stimulating & friendly international research environment,
- ✓ Professional administration support and help with all personal, economic, legal, project, IT, intellectual property needs,
- ✓ Flexible working time, 5 weeks of vacation,
- ✓ Family allowance for married candidates, living allowance, meals allowance, university kindergarten, health insurance,
- ✓ Work-life balance in a historical middle-sized university city, www.budejce.cz/en/.

Requirements

- ✓ Eligibility criterion 1: MSc degree obtained no earlier than July 2017 and no PhD degree at the start of the contract,
- ✓ Eligibility criterion 2: In July 2021, the candidate cannot have lived and/or worked in the Czech Republic for more than 1 year within the past four years,
- ✓ Have a degree (MSc) (preferentially in mathematics, applied mathematics or related fields) and excellent mathematical skills. In any case, candidates must document to have sufficient mathematical background (e.g., by Master theses, list of mathematical courses passed etc.),
- ✓ Have strong interest in mathematical modelling applied to ecology and related fields
- ✓ Ability to work and learn to work with mathematical software (e.g., Mathematica or Maple) and/or agent based software,
- ✓ English proficiency (both oral and written),
- ✓ Start the position before October 2021.

To apply, please send

- ✓ Your CV including copy of transcripts, (i.e., the list of all courses and grades during the study - both BSc and MSc),
- ✓ A copy of the MSc certificate,
- ✓ A letter that motivates your interest in this position and highlights your qualifications for this position,
- ✓ A PDF copy of Master theses and all publications (if any)
- ✓ 1-2 references

to jobs@prf.jcu.cz by **March 31, 2021**. For more details about the position, please contact Vlastimil Krivan at krivan@prf.jcu.cz