Grants Week 2022

Marie Sklodowska-Curie Actions – Postdoctoral Fellowship

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September 19, 2022

HORIZON EUROPE MSCA-PF
Deeptajyoti Sen, Ph.D., M.Sc. project CrossInteractions

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supervisor, Dept. of Mathematics and Statistics

The project aims to understand significant or abrupt changes in dynamics of models related to cross-interactions between partial dynamical processes and study how these cross-interactions affect the system's behavior as a whole.

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- nonlinear modeling

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- nonlinear modeling
  - population biology

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- nonlinear modeling
  - population biology
  - neuroscience

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- nonlinear modeling
  - population biology
  - neuroscience
  - epidemiology

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- nonlinear modeling
  - population biology
  - neuroscience
  - epidemiology
- bifurcation analysis

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- nonlinear modeling
  - population biology
  - neuroscience
  - epidemiology
- bifurcation analysis
  - bifurcation theory and chaos

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- nonlinear modeling
  - population biology
  - neuroscience
  - epidemiology
- bifurcation analysis
  - bifurcation theory and chaos
  - numerical methods

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- nonlinear modeling
  - population biology
  - neuroscience
  - epidemiology
- bifurcation analysis
  - bifurcation theory and chaos
  - numerical methods
  - new approaches of data driven dynamics (machine learning)

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- strong team with international collaboration
- great help from the MU project manager

Multidisciplinarity

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- mathematics theoretical/applied

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- epidemiology (infectious disease modeling, age structured/seasonal vaccination schemes, covid-19)

Attractiveness

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- mathematics itself IS attractive

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- population biology IS attractive

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- population biology IS attractive
- neuroscience IS attractive

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- population biology IS attractive
- neuroscience IS attractive
- epidemiology at least was attractive

Clear explanation

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- you cannot explain it all – choose the core, the main idea

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- DON'T use scientific terms known only in the field without explanation

Clear explanation

- you cannot explain it all – choose the core, the main idea
- DON'T use scientific terms known only in the field without explanation
- make a nice figure and a good Gantt chart of the project

Team strengths

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- think about possible broader team collaborations

Team strengths

- think about possible broader team collaborations
- think about your own strengths – and don't overdo it

Project manager's help

- very very helpful, big thanks you to Mr. Jakub Zeman

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- advice: listen to what they say

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- a lot of work = moving forward

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- make new connections and collaborations

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- a lot of preparations = set the main topics for the research
- a lot of work = moving forward
- make new connections and collaborations
- set and strengthen the team

Thank You for Your Attention!