

Subject: Postdoc Position, Applied Mathematics, Sao Paulo Univ

From: Tiago Pereira <tiago@icmc.usp.br>

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The Center for Mathematical Sciences Applied to Industry (CEPID-CeMEAI) a post-doc position available for starting immediately. The requirements for each of the positions are described below. The salary is R\$5908,00 per month tax free. The appointed Post-doc will also get return travel from his/her country to Brazil paid by the grant. The positions are initially for one year, renewable for a second year pending on suitable performance.

Post-Doctoral Research Project
University of Sao Paulo at Sao Carlos
ICMC , Department of Applied Mathematics and Statistics

Location: Sao Carlos, Sao Paulo State- Brazil

Title: Stability and Synchronisation of Power-grid Networks

Supervisor: Tiago Pereira

Job description/Requirements: Power-grids are formed by the complex interaction structure between generators and consumers. The power stations must keep a proper synchronisation to avoid energy supply disturbances and blackouts. Because of the complex linking structure of the network predicting the stability of synchronisation and how the network structure affects the stability remains an open challenge. This project aims at understanding how the linking structure affects the overall synchronisation of the power generators. In particular, how blackouts can be avoided by manipulating the network structure. To this end, we study how the network affects the stability of the synchronised dynamics and its

basin of attraction.

Interested candidates should e-mail a CV and two letters of recommendation from university professors as soon as possible to:

Prof. Tiago Pereira

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Contract Condition: Grant from FAPESP under the Research, Innovation

and Dissemination Centers (RIDC-CeMEAI)

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