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Solvability and Regularity for Some Classes of Partial Differential Equations

March 11, 2019

Call for applications

A post-doctoral scholar position in Mathematics is available at the Department of Mathematics at the Federal University of São Carlos (https://www.dm.ufscar.br/ppgm/index.php/pt-br/apresentacao).

The research activity is related to the ongoing project "Geometryc Theory of PDE and Several Complex Variables" (https://bv.fapesp.br/pt/auxilios/102625/teoria-geometrica-de-edp-e-analise-complexa-multidimensional/) with the goal of studying general properties of solutions (existence, regularity, unique continuation, etc.) of (systems of) complex vector fields and its connections with the theory of holomorphic functions in several complex variables.

Post-doctoral fellowships are granted for 24 months, with start data around April and May 2019, and can be extended for another period of up to 24 months provided mutual consent.

The post-doctoral research will focus on many questions regarding solvability and regularity for some classes of Partial Differential Equations. In the class of involutive systems, with emphasis on hypocomplex structures, the research will focus on questions regarding top-degree solvability for the associated differential complex. In the context of vector fields, the project will focus on the normal formal, solvability and regularity for the so called operators of Mizohata type.

Candidates should have a Ph.D. in Mathematics or Applied Mathematics and a strong background in Partial Differential Equations and Analysis in Several Complex Variables.

To apply, please send the following documents by e-mail to Prof. Paulo D. Cordaro (cordaro@ime.usp.br) and to Prof. Gustavo Hoepfner (hoepfner@dm.ufscar.br and a copy to gushoepfner@gmail.com).

1. Curriculum vitae as a PDF (Portable Document Format) file with the list of publications identified by DOI;
2. Diploma/documents confirming the PhD degree;
3. Cover letter indicating motivation, current and future research interests, along with a two-page research proposal;
4. Contact information (name and e-mail address) of two senior references.

Applications are due no later than April 10th, 2019 and the start date will depend on the approval of the São Paulo Research Foundation (FAPESP).

The post-doctoral fellowship includes a tax free monthly stipend of R$ 7.373,10 (about USD 1,971.44 and EU$ 1,735.76) and research contingency funds (15% of the annual value of the fellowship, each year), intended for use in activities strictly related to the fellowship research project. FAPESP also provides financial support in case of moving to São Carlos, SP, when the distance is longer than 350 km (three hundred and fifty kilometers). More information about the post-doctoral fellowship can be obtained at: http://www.fapesp.br/en/postdoc.