



INNOVATIVE ECONOMY
NATIONAL COHESION STRATEGY



EUROPEAN UNION
EUROPEAN REGIONAL
DEVELOPMENT FUND



Stipend offer nr 4/MPD/10

Position: PhD student

Number of stipends: 10

Institution :

Faculty of Mathematics, Informatics and Mechanics, University of Warsaw

Institute of Mathematics, University of Wrocław

Institute of Mathematics of the Polish Academy of Sciences, Warsaw

Interdisciplinary Centre for Mathematical and Computational Modelling, University of Warsaw

Maximum period of stipend agreement: 4 years

Position starts on : 01.09.2010

Stipend's amount: 3000 PLN/month (in Poland), 4500 PLN (abroad)

Pension insurance: yes

Key responsibilities include:

1. Diffusion-driven phase separation in binary systems over complex geometries: a qualitative study of dynamical developments
2. Diffusion-driven phase separation in binary systems over complex geometries: a numerical study
3. Process stabilization and closed-loop control of nonlinear diffusion-reaction developments in structured populations
4. Structured population models for predator -prey interactions. The case of Daphnia and size selective planktivorous fish
5. The issue of regularity for systems of complex flows based on the Navier-Stokes equations
6. Analytic and numerical study of dislocation dynamics
7. Novel massively parallel algorithms for solving nonconforming discretizations of PDEs
8. Spatio-temporal dynamics of structured populations - the growth of epidermis
9. Fluid model of crystal plasticity - mathematical properties and computer simulations

10. Bio-flows in pipe-like domains: qualitative analysis, reduction to monodimensional models and numerical simulations

Profile of candidates:

1. Master degree
2. Fluency in English
3. Very good knowledge in mathematical analysis

Required documents:

1. Cover letter
2. Identification and application form available on the webpage <http://mmns.mimuw.edu.pl/recruitment.html>
3. List of publications
4. Transcript of academic records
5. Certificate of the master degree (scanned copy)

For more details about the position please visit:

<http://mmns.mimuw.edu.pl>

Principal Investigator: Piotr Gwiazda

Address for applications: mmns@mimuw.edu.pl

Closing date: 20.05.2010 (deadline for registration 19.05.2010)

Please include in your offer :

"In accordance with the personal data protection act from 29 th August 1997, I hereby agree to process and to store my personal data by the Institution for recruitment purposes".

The granting institution may seek to contact the best candidates only