

PhD Position in Applied Mathematics at ETH Zürich

Adaptive Discretization Schemes for Parametric Linear Transport Equations

Parametric linear transport equations are a class of hyperbolic PDEs stated on a 5-7 dimensional phase space. Their scope of applicability ranges from nuclear physics to heat transfer, climate modeling, geodesy and biology. Due to the high dimensionality, as well as for other reasons, their efficient numerical solution is extremely challenging.

This project is concerned with the development, implementation and theoretical analysis of novel numerical discretization methods for such equations.

The successful candidate will receive a competitive salary according to the standards of ETH Zürich as well as the opportunity to work in a stimulating environment at the Seminar for Applied Mathematics. The project is embedded in international activities and international collaborations are possible and encouraged. The projected duration will be approximately 3 years. The position is financed by the funds allocated to my group as Assistant Professor at ETH Zürich starting in October 2011.

Willingness to participate in teaching is expected. Prerequisites are a familiarity with (or willingness to learn) FE- and wavelet methods for PDEs and Applied Harmonic Analysis, as well as proficiency with MATLAB and C++. Formally required are a MSc degree in Applied Mathematics (or similar degree) and the eligibility to work in Switzerland.

Please submit your CV, together with a motivation letter, a description of research interests and letter(s) of recommendation electronically to pgrohs@math.ethz.ch.

For further contact details and information regarding my research, please consult my homepage
<http://www.sam.math.ethz.ch/~pgrohs>

Philipp Grohs

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