

Boris Levant

Position

Ph.D student in Applied Mathematics
Supervised by Prof. Edriss S. Titi

Address

Dept. of Computer Science & Applied Mathematics
Weizmann Institute of Science
Rehovot, Israel 76100

Born: Nov. 16, 1975

Marital status: married

tel. +972-8-9342761

cell. +972-54-7577256

fax. +972-8-9342945

mail. boris.levant@weizmann.ac.il

www.wisdom.weizmann.ac.il/~borisl/

Professional and personal skills

Mathematics: PDEs, Navier-Stokes equations, functional analysis, mathematical theory of fluid mechanics and turbulence, numerical calculations.

Computers: good expertise in C/C++ programming, Matlab, object-oriented design and development, Windows and Unix operation systems.

Communication: fluent English, Hebrew and Russian (native language), a good team worker, strong management abilities, high-level technical writing skills.

Education

Ph.D in Applied Mathematics 2004 - June 2008 (estimated)
Weizmann Institute of Science

Thesis: “*Analytic and numerical studies of certain shell model of turbulence*”, under the supervision of Prof. Edriss S. Titi. Specialized in non-linear PDEs, Navier-Stokes equations and mathematical theory of turbulence and fluid dynamics.

M.Sc in Mathematics 2002 - 2004
Weizmann Institute of Science

Thesis: “*Euclidean sections of the cross-polytope*”, under the supervision of Prof. Gideon Schechtman. Specialized in functional analysis and probability theory.

B.Sc in Mathematics and Computer Sciences 1997 - 2000
Tel-Aviv University

Publications

- V. Kalantarov, B. Levant, E. Titi, “*Gevrey regularity for the global attractor of the 3D Navier-Stokes-Voigt equations*”, submitted, [arXiv:0709.3328v1](https://arxiv.org/abs/0709.3328v1) [math.AP].
- R. Benzi, B. Levant, I. Procaccia, E. Titi, “*Statistical properties of nonlinear shell models of turbulence from linear advection models: rigorous results*”, *Nonlinearity*, **20** (2007), 1431–1441.
- P. Constantin, B. Levant, E. Titi, “*Sharp lower bounds for the dimension of the global attractor of the Sabra shell model of turbulence*”, *Journal of Statistical Physics*, **127** (2007), 1173–1192.
- P. Constantin, B. Levant, E. Titi, “*A note on the regularity of inviscid shell models of turbulence*”, *Physical Review E*, **75** (1) (2007).
- P. Constantin, B. Levant, E. Titi, “*Analytic study of shell models of turbulence*”, *Physica D* **219** (2006), 120-141.

Presentations and posters

- "On a new inviscid regularization of the 3D Navier-Stokes and Euler equations", July 22-28, 2007, The Darryl D. Holm Fest, Centre Bernoulli of the Ecole Polytechnique Federale de Lausanne, Switzerland.
- "Shell models as phenomenological models of turbulence: theory and computations", June 14, 2007, The Seventh Israeli Applied and Computational Math Mini-Workshop, Weizmann Institute of Science, Rehovot, Israel.
- "A short review of the study of the Sabra shell model of turbulence", Dec. 2006, Perspectives in fluid dynamics conference, Centre Bernoulli of the Ecole Polytechnique Federale de Lausanne, Switzerland.
- "Analytic study of shell models of turbulence", *Israeli Applied Mathematics Workshop*, Tel Aviv University, Jan. 2006.
- "Periodic Wave Patterns of 2-dimensional Boussinesq Systems", *Physbio summer school*, St. Etienne de Tinee, France, Oct. 2005.
- "Upper bounds for dimension of the global attractor for dissipative dynamical systems with applications to turbulence models", *Dynamical Systems group meeting*, Weizmann Institute of Science, May 2005.
- "Inertial manifolds for dissipative non-linear equations", *Dynamical Systems group meeting*, Weizmann Institute of Science, Feb. 2005.

Invited conferences and summer schools

- *The Darryl D. Holm Fest*, Centre Bernoulli of the Ecole Polytechnique Federale de Lausanne, Switzerland, July 2007.
- *Advection, Convection and Turbulent Transport of Heat, Mass and Momentum*, Lipschitz lecture by prof. Charles Doering, Hausdorff Research Institute for Mathematics, University of Bonn, Germany, Apr. 30 - May 18, 2007.
- *Perspectives in fluid dynamics conference*, Centre Bernoulli of the Ecole Polytechnique Federale de Lausanne, Switzerland, Dec. 2006.
- *Mathematics for peace and development*, University of Cordoba, Spain, July 17-22, 2006.
- *Nonlinear dynamics summer school*, Physbio, St. Etienne de Tinee, France, Aug-Oct. 2005.

Industry experience

Software engineer 1997-2002
Motorola Communications, Israel
Design and development of the future generation of the Motorola SCADA software products. Object-oriented analysis and design, C/C++, advanced Win32 programming.

Teaching and administrative experience

Organizing students seminar since 2006
Weizmann Institute of Science

Summer students advisor 2004
Weizmann Institute of Science