

CURRICULUM VITAE

Nir Gavish

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Education

- 2005 – Present PhD student in Applied Mathematics, Tel Aviv University
"New singular solutions of the nonlinear Schrödinger equation"
Advisor: Prof. Gadi Fibich
- 2004 M.Sc. student in Applied Mathematics, Tel Aviv University
(Transferred to direct PhD program)
- 1998 – 2003 B.A. (magna cum laude) in Mathematics, The Open University of Israel

Prizes

- 2008 Invited participant of the Clay Mathematics Institute Summer School
- 2007 Co-winner of the SIAM student paper prize
- 2006-2009 Levi Eshkol scholarship, Israeli Ministry of Science
- 2005 Excellence award for PhD students. Mathematics Department, Tel Aviv University
- 2002 On the Dean's List for BA students, The Open University of Israel
- 2000 On the Dean's List for BA students, The Open University of Israel

Teaching experience

- 2009 Numerical analysis for engineers (Teacher)
- 2004-2008 Numerical analysis for engineers, Numerical analysis for mathematicians (TA)
- 2004 Calculus for biologists (TA)
- 2003 IBM instructor (see industry experience)

Industry experience

- 2003 Consultant and instructor at IBM education center:
IBM Certified Solutions Expert: DB2 UDB V7.1 Database Administration for OS/390

Talks in conferences

- 11 July, 2008 Invited talk, SIAM annual meeting, San Diego, USA (unable to attend)
- 10 June. 2008 Invited talk, Nonlinear Waves Conference - Theory and Applications, Beijing, China
- 9 Dec. 2007 Israel Physical Society annual meeting, Rechovot, Israel
- 11 Sep. 2006 Invited talk, SIAM conference on nonlinear waves 2006, Seattle, Washington, USA
- 3 Jan. 2006 Invited talk, AMI (Applied Mathematics in Israel) 2005, Tel Aviv, Israel
- 7 Jul. 2005 Conference of nonlinear Dispersive Wave Phenomena, Crete, Greece

List of Publications – Nir Gavish

1. “New singular solutions of the nonlinear Schrödinger equation”,
Gadi Fibich, Nir Gavish, and Xiao-Ping Wang.
Physica D, 211, 193-220, 2005.
2. “Collapse dynamics of super-Gaussian beams”,
Taylor Grow, Amiel Ishaaya, Luat Vuong, Alexander Gaeta, Nir Gavish and Gadi Fibich.
Optics Express, Vol. 14, Issue 12, 4946-5837, 2006.
3. “Efficient solution of $Ax^{(k)}=b^{(k)}$ using A^{-1} ”,
Adi Ditkowski, Gadi Fibich and Nir Gavish.
Journal of scientific computing. Vol. 32, 1, 29-44, 2007
4. “Singular ring solutions of critical and supercritical the nonlinear Schrödinger equation”,
Gadi Fibich, Nir Gavish, and Xiao-Ping Wang.
Physica D, 231, 55-86, 2007
Paper has been selected as one of the winners of the [2007 SIAM Student Paper Competition](#)
5. “Theory of singular vortex solutions of the nonlinear Schrödinger equation”,
Gadi Fibich and Nir Gavish.
Physica D, 237, 2696-2730, 2008.
6. “Critical power of collapsing vortices”,
Gadi Fibich and Nir Gavish.
Physical Review A, 77, 045803, 2008.
7. “Filamentation dynamics of high-intensity input beams and pulses”.
Nir Gavish, Gadi Fibich, Luat Vuong and Alexander Gaeta.
Physical Review A, 78, 043807, 2008
8. “A grid redistribution method for singular problems”,
Adi Ditkowski and Nir Gavish.
Journal of Computational Physics, 228: 2354-2365, 2009.
9. “Singular standing-ring solutions of nonlinear partial differential equations”,
Guy Baruch, Gadi Fibich and Nir Gavish.
Submitted to Physica D, 2009.
10. “Numerical solution of large asymmetric auctions”,
Gadi Fibich and Nir Gavish.
In preparation.
11. “A dynamical systems approach to analysis of asymmetric auctions”,
Gadi Fibich and Nir Gavish.
In preparation.