

Hagai Binyamin Perets - CV

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General Info

Date of birth: 22/4/77
 Marital Status: married to Dr. Ruth Perets + 2 children, Galia (5) and Yuval (3.5)

Education

2005- 2009 (Expected)	Weizmann Institute of Science PhD student
2001-2004	Hebrew University in Jerusalem <ul style="list-style-type: none"> • Physics complementary studies • The Hebrew University "Amirim Ruah" Alumni Program for outstanding students. MSc, Physics, Thesis title: "Molecular hydrogen formation under interstellar conditions"
2001	Open University of Israel <ul style="list-style-type: none"> • B.A., Science - Mathematics, Magna cum laude.

Teaching Experience

2006-2007	Teaching Assistant, Graduate course Astrophysics I; Weizmann Institute
2002-2004	Physics undergraduate Lab Instructor in the Hebrew University in Jerusalem

Honors, Awards, prizes and Scholarships	<ul style="list-style-type: none"> • CfA Harvard Award Fellowship, 2010-2013 (Harvard University) • Rothschild Fellow, 2009-2010 (Rothschild Yad-Hanadiv Foundation) • Fulbright Fellow, 2009-2010 (Unites States-Israel Educational Foundation) • FIRST (BIKURA) Fellow, 2009-2010 (Israel Science Foundation) • International Dan-David Prize Scholarship, 2009 (Tel-Aviv University) • The Israeli Commercial and Industrial Club award for outstanding achievements, 2007 • Weizmann Institute PhD scholarship, 2005-2009 (Weizmann Institute of Science) • Racah award for excellence in research, 2004 (Racah institute of physics, Hebrew university in Jerusalem) • Racah institute of Physics MSc scholarship, 2003-2004 (Hebrew University in Jerusalem) • Amirim Scholarship for outstanding students, 2001-2004 (Hebrew University in Jerusalem) • BA graduations, Magna cum laude, 2001 (Open University of Israel) • Dean list and prize scholarships, 1993, 1994, 2000 (Open University of Israel) • Outstanding Officer 2000, (IDF) • Mathematical Research Excellence awards (IDF) Special awards for best research projects, 2000, 2001
Professional Scientific Service	<ul style="list-style-type: none"> • Member of the editorial board for “The Open Astronomy Journal”, 2007- • Referee for “ApJ Letters” and “The Open Astronomy Journal” • Co-founder and co-organizer of the Israeli astrophysics and cosmology students conference series (AsCoS): AsCoS I (2008, Weizmann Institute), AsCoS II (planned in 2009, Tel-Aviv university)
Additional Research Experience	<p>1995–2001 Intelligence (Army service (IDF). Rank: First Lieutenant)</p> <ul style="list-style-type: none"> • 1995-2001 – Mathematical and algorithmic research • 1997-2001 – Head of several research teams.
Languages	Hebrew, English, Arabic (reading), Russian (basic)
Programing	<p>Languages: C, C++, Python, Matlab, Fortran</p> <p>Operating systems: Unix, Linux, Windows</p>
Voluntary, Outreach and Educational Activity in the Community	<p>Science teaching and outreach:</p> <p>2006-2008 “Youth in Science”, Weizmann Institute</p> <ul style="list-style-type: none"> – Physics lecturer for talented youth. – Short term physics projects instructor for outstanding young students – Long term physics project supervisor for outstanding young student <p>2003-2004 School for Arts and Science, Jerusalem (ASA) Physics project instructor for talented youth</p> <p>2000-2001 “Yahdav” Organization (voluntary educational help by soldiers) Low socio-economical level students Math tutor.</p> <p>1993-1995 Misgav High School Science studies (chemistry and Mathematics) assistance for disadvantaged students</p> <p>Other educational and voluntary activities:</p> <p>2004-2005 “Amutat Reut” and “Meoravut Hevratit” organizations Co-founder of the education Center for low socio-economical level high school students</p> <p>2004-2005 MA’AGAL Volunteers Center in Gilo Neighborhood in Jerusalem. Founder and head of the volunteer center in Gilo neighborhood</p> <p>2003-2004 “Social Involvement (“Meoravut Hevratit”)” Organization Personal guide and tutor for delinquent youth</p> <p>2002-2003 “Beit Hilel”, Heebrew University - Students bi-cultural meetings Arab-Jewish students meetings and discussions</p> <p>2001-2002 “Gesher” Organization (bridging over social gaps)</p> <ul style="list-style-type: none"> – Groups moderator (religious and non-religious groups) – Seminars coordinator and organizer <p>1993-1995 Misgav High School</p> <ul style="list-style-type: none"> – Hebrew study assistance for new immigrants – Participant and organizer of extra-curricular discussions on culture and Judaism <p>1993 United Nations Children’s Fund (UNICEF) Joint Arab-Jewish delegation to Spain</p> <p>1992-1993 Children Teaching Children Project Arab-Jewish meetings and discussions</p>

Talks	Type	Title	Conference/Place	year
	Invited Talk	On the importance of being a triple	Technion Institute of Technology, Haifa Israel	2009
	Invited Talk	Young stars, hypervelocity stars and gravitational waves in the Galactic center	Tel-Aviv University, Tel-Aviv	2008
	Invited Talk	Galactic center massive perturbers, young stars and hypervelocity stars	Galactic center workshop, Ringberg, Germany	2007
	Talk	The story of SN 2005E: A new type of stellar explosion	Fireworks, Weizmann Institute of Science	2008
	Talk	The efficient merger of binary massive black holes	Galaxy evolution workshop, Jerusalem, Israel	2008
	Talk	Dynamical evolution of the young stars in the Galactic center	The central Kiloparsec conference, Ierapetra, Crete	2008
	Talk	Binary rejuvenation and triple disruption: Galactic center young stars and runaway/hypervelocity stars in the halo	Nuclear Star Clusters across the Hubble Sequence conference, Heidelberg, Germany	2008
	Talk	Massive Pertubers and Gravitational Wave sources in Galactic Nuclei	Israel Physical Society (IPS) 2007 meeting, Rehovot, Israel	2007
	Talk	Binary disruptions and compact objects in galactic nuclei	N-body dynamics in near-Keplerian potentials workshop, Leiden, Netherlands	2007
	Talk	Massive perturbers in the galactic center	Galactic Center Workshop, Badhonnef, Germany	2006
	Talk	Massive perturbers in the galactic center	IPS meeting, Karmiel, Israel	2005
	Seminar Talks	Young stars, hypervelocity stars and gravitational waves in the Galactic center	Berkeley (TAC), Caltech (TAPIR), Haravad (CFA-ITC), IAS Princeton	2008
	Seminar Talks	On the importance of being a triple	Caltech (TAPIR), Harvard (CfA), RIT	2008, 2009

Publications:
Refereed and
Submitted
Papers

#	Status	Title	Authors	Year	Journal ref.
19	In press	Classical Diffusion of a quantum particle in a noisy environment	Amir, Lahini & Perets	2009	PRE, in press arXiv:0902.0890
18	In press	Runaway and hypervelocity stars in the Galactic halo: Binary rejuvenation and triple disruption	Perets	2009	ApJ, in press arXiv:0802.1004
17	In press	The Galactic potential and the asymmetric distribution of hypervelocity stars	Perets et al.	2009	ApJ, in press arXiv:0809.2087
16	In press	Evidence for Warped Disks of Young Stars in the Galactic Center	Bartko et al. (6th author)	2009	ApJ, in press arXiv:0811.3903
15	Published	On the triple origin of blue stragglers	Perets & Fabrycky	2009	ApJ, 697, 1048
14	Published	Dynamical and evolutionary constraints on the nature and origin of hypervelocity stars	Perets	2009	ApJ , 690, 795
13	Published	Realization of quantum walks with negligible decoherence in waveguide lattices	Perets et al.	2008	PRL , 100 (17), 170506
12	Published	Milky Way potentials in CDM and MOND. Is the Large Magellanic Cloud on a bound orbit?	Wu et al. (4th author)	2008	MNRAS , 386 (4), 2199
11	Published	Massive perturbers and the efficient coalescence of binary massive black holes	Perets & Alexander	2008	ApJ , 677, 146
10	Published	Molecular Hydrogen Formation on Low Temperature Surfaces in Temperature Programmed Desorption Experiments	Vidali et al. (8th author)	2008	J. Phys. Chem. A. 111, 12611
9	Published	Molecular Hydrogen Formation on Amorphous Silicates Under Interstellar Conditions	Perets et al.	2008	ApJL , 661, 163
8	Published	Massive perturber-driven interactions between stars and a massive black hole	Perets , Hopman & Alexander	2007	ApJ , 656, 709
7	Published	Molecular Hydrogen Formation on Porous Dust Grains	Perets & Biham	2006	MNRAS , 365, 801
6	Published	Modeling Negative Feedback Gene Networks	Lipshatat, Perets & Biham	2005	Gene , 347, 265
5	Published	Molecular Hydrogen Formation on Ice Under Interstellar Conditions	Perets et al.	2005	ApJ , 627, 850.
4	Submitted	A new type of stellar explosion	Perets et al.	2009	Submitted to Nature
3	Submitted	Dynamical evolution of the young stars in the Galactic center: N-body simulations of the S-stars	Perets et al.	2009	arXiv:0903.2912
2	Submitted	Kozai cycles, tidal friction and the dynamical evolution of binary minor planets	Perets & Naoz	2008	arXiv:0809.2095
1	Submitted	Temperature fluctuations of interstellar dust grains	Horn, Perets & Biham	2007	arXiv:0709.3198

White papers and conference proceedings	#	Title	Authors	Year	Ref.
	8	The Galactic Center: A Laboratory for Fundamental Astrophysics and Galactic Nuclei	Ghez et al.	2009	ASTRO2010 White Paper. arXiv:0903.0383
	7	Dynamical evolution of the young stars in the Galactic center	Perets et al.	2008	arXiv:0807.2340
	6	Getting a kick out of the stellar disk(s) in the galactic center	Perets , Kupi & Alexander	2008	IAU Proceedings, 246, 275
	5	Deterministic and Stochastic Simulations of Simple Genetic Circuits	Biham et al.	2007	arXiv:q-bio/0703030
	4	Formation of molecular hydrogen on amorphous silicate surfaces	Li et al.	2007	arXiv:0709.2472
	3	Massive Perturbers in The Galactic Center	Perets , Hopman & Alexander	2006	J. Phys.: Conf. Ser., 54, 293
	2	Formation of molecular hydrogen on analogues of interstellar dust grains: experiments and modeling	Vidali et al.	2005	J. Phys.: Conf. Ser., 6, 36
	1	The formation of H ₂ and HD with the master equation approach	Biham, Lipshtat & Perets	2005	IAU Proceedings, 231, 238