

Elad Steinberg

Personal Information

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Education

2016– **PostDoc**, "*The Hebrew University of Jerusalem*", Jerusalem, Israel.
2010–2016 **PhD Physics**, "*The Hebrew University of Jerusalem*", Jerusalem, Israel.
2008–2010 **M.Sc Physics**, "*The Hebrew University of Jerusalem*", Jerusalem, Israel.
2005–2008 **B.Sc Physics**, "*The Hebrew University of Jerusalem*", Jerusalem, Israel.

Master Thesis

Title *Binary YORP and Evolution of Binary Asteroids*
Supervisor Prof. Re'em Sari

PhD Thesis

Title *Understanding Planet Formation: Spin and Size Distribution of the Main Belt Asteroids and Numerical Hydrodynamics*
Supervisor Prof. Re'em Sari
Submission date May 2016

Publications

- 2016 **"Instability of Supersonic Cold Streams Feeding Galaxies I: Linear Kelvin-Helmholtz Instability with Body Modes"**, Mandelker, Nir; Padnos, Dan; Dekel, Avishai; Birnboim, Yuval; Burkert, Andreas; Krumholz, Mark R.; **Steinberg, Elad**, 2016, Accepted to MNRAS.
- 2016 **"Grid noise in moving mesh codes: fixing the volume inconsistency problem"**, **Steinberg, Elad**; Yalinewich, Almog; Sari, Re'em., 2016, MNRAS, 459, 1596.

- 2015 "**RICH: Open Source Hydrodynamic Simulation on a Moving Voronoi Mesh**", *Yalinewich, Almog; Steinberg, Elad; Sari, Re'em.*, 2015, ApJS, 216, 35.
- 2015 "**The Galactic Center cloud G2 and its gas streamer**", *Pfuhl, Oliver; Gillessen, Stefan; Eisenhauer, Frank; Genzel, Reinhard; Plewa, Philipp M.; Ott, Thomas; Ballone, Alessandro; Schartmann, Marc; Burkert, Andreas; Fritz, Tobias K.; Sari, Re'em; Steinberg, Elad; Madigan, Ann-Marie*, 2015, ApJ, 798, 111.
- 2015 "**Balancing the load: A Voronoi based scheme for parallel computations**", *Steinberg, Elad; Yalinewich, Almog; Sari, Re'em; Duffell, Paul.*, 2015, ApJS, 216, 14.
- 2015 "**Spins of Large Asteroids: A Hint of a Primordial Distribution in Their Spin Rates**", *Steinberg, Elad & Sari, Re'em.*, 2015, AJ, 149, 124.
- 2011 "**Binary YORP Effect and Evolution of Binary Asteroids**", *Steinberg, Elad & Sari, Re'em*, 2011, AJ, 141, 55.

Experience

Teaching Experience

- 2011–2014 **Teaching Assistant**, *Mechanics and Special Relativity, Quantum Mechanincs I.*
- 2009–2011 **Teaching Assistant**, *Mechanics for Chemistry and Pharmacology students, Advanced Astrophysics (graduate course).*
- 2008–2009 **Teaching Assistant**, *Mechanics for Medicine students, Second Year Physics Lab Instructor.*

Talks Given

- July, 2014 "Spins of asteroids: The tale of the long tail", ACM 2014
- May, 2014 "Should we move to moving mesh?", Munich Observatory
- June, 2010 "Solar Powered Asteroids - The YORP and BYORP Effect", Hebrew University Astrophysics department weekly colloquium

Conferences

- 2013 "ACM 2014", Helsinki, Finland
- 2013 "IAUS 299: Exploring the formation and evolution of planetary systems", Victoria, BC
- 2011 "Exploring Strange New Worlds: From Giant Planets to Super Earths", Flagstaff Arizona
- 2010 The 27th Jerusalem Winter School in Theoretical Physics "Frontiers in High-Energy Astrophysics", Jerusalem, Israel
- 2010 Advanced School and Workshop on Computational Gravitational Dynamics, Leiden, Netherlands

Military Service

- 2001–2005 Israeli Air Force, honorably discharged

Miscellaneous

- 2006–2007 Guide, Bloomfield Science Museum, Jerusalem
- 2011–2014 Hebrew University youth outreach program , volunteered for 100 hours

Awards

- 2012 **Ilan Ramon Scholarship**, *a national Israeli scholarship for excellence in astrophysics.*

Languages

English Mother tongue

Hebrew Mother tongue

Computer Skills

Programming Languages Fortran, C++. Extensive knowledge with C++ and MPI in Windows and Linux platforms. In my Phd I co-developed a Voronoi based moving mesh hydrodynamical code, that is made massively parallel by means of MPI.

Mathematical Program Matlab, Mathematica.

Proficiency

Publications