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Curriculum Vitae – Avi Shporer

Personal

Current address: Las Cumbres Observatory Global Telescope Network, Inc.
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Citizenships: USA, Israel

Education

2009–Present: Las Cumbres Observatory Post Doctoral Fellow,
Las Cumbres Observatory & UCSB, Santa Barbara, CA, USA

2005–2009: Ph.D., Tel Aviv University, Tel Aviv, Israel
Thesis title: "Transiting Extrasolar Planets: Detection and Follow-up"
Thesis advisor: Prof. Tsevi Mazeh

2002–2005: M.Sc., Magna Cum Laude, Tel Aviv University, Tel Aviv, Israel
Thesis title: "Variability Search in M33"
Thesis adviser: Prof. Tsevi Mazeh

1994–1997: B.Sc. in Physics and Computer Science,
Hebrew University, Jerusalem, Israel

(1997–2002: Military service, rank: Captain)

Work Experience

2002–2009: Research and teaching assistant, Tel Aviv University, School of Physics and Astronomy. Teaching experience includes physics lab instruction and lectures in computer programming, mathematics and astrophysics for undergraduate students.

Refereed Publications

Total: ∼90

First-author publications: 10

Second or third-author publications: 9

Total citations (ADS): 2572 (h-index: 26)

Awards, Honors and Scholarships

Las Cumbres Observatory Post Doctoral Fellow, 2009.

MPIA Postdoctoral Research Fellow, 2009 (declined).

Israel Physical Society (IPS) Fraenkel Prize for a Graduate Student, 2008.

Dean's scholarship for academic excellence, 2008.

Scholarship for academic achievements in memory of Prof. Yuval Ne'eman, 2008.

Dean's scholarship for academic excellence, 2007.

M.Sc. graduation, Magna Cum Laude, 2005.

School of Physics and Astronomy award for excellence in teaching, 2005.

Dean's commendation for public outreach activity, 2005.

The Ilan Ramon scholarship for academic excellence and community involvement, 2003.

School of Physics and Astronomy award for high acceptance grades, 2001.

Professional Scientific Service

Referee for professional astrophysical journals.

Member of LCOGT TAC, 2012.

Active Participation in Scientific Meetings

"Planets around Stellar Remnants", Arecibo, Puerto Rico, Jan 2012 (Poster).

The 219th AAS Meeting, Austin, TX, Jan 2012 (Talk).

"The First Kepler Science Conference", NASA Ames Research Park, Moffett Field, CA, Dec 2011 (Poster).

"The Impact of Asteroseismology across Stellar Astrophysics", KITP, Santa Barbara, CA, Oct 2011 (Talk).

The 218th AAS Meeting, Boston, MA, May 2011 (Talk).

The 217th AAS Meeting, Seattle, WA, Jan 2011 (Talk).

"Big Science with Small Telescopes", Dornburg Castle, Germany, Oct 2010 (Talk).

"IAU Symposium No. 276: The Astrophysics of Planetary Systems", Torino, Italy, Oct 2010 (Poster).

"Exoplanets Rising", KITP, Santa Barbara, CA, Mar 2010 (Poster).

"2008 IPS Meeting", Ben Gurion University, Beer Sheva, Israel, Dec 2008 (Invited Talk).

"IAU Symposium No. 253: Transiting Planets", Boston, MA, May 2008 (Poster).

"2007 IPS Meeting", Weizmann Institute for Science, Rehovot, Israel, Dec 2007 (Talk).

"2007 Michelson Summer Workshop - Planetary Transits: Detection to Characterization", NASA Ames, CA, Jul 2007.

"24th Winter School in Theoretical Physics", Hebrew University, Jerusalem, Israel, Dec 2006.

"Transiting Extrasolar Planets Workshop", MPIA, Heidelberg, Germany, Sep 2006 (Poster).

Seminars and Colloquia

"Doing more with photometry: Studying binary companions with orbital photometry"

UC Santa Barbara, CA, Sep 2011 (astrophysics seminar)

California Institute of Technology, Pasadena, CA, Sep 2011 (Tea Talk)

"The Kepler Mission: Looking for Earth-like planets"

Technion, Haifa, Israel, Jun 2011 (astrophysics seminar)

Tel Aviv University, Tel Aviv, Israel, Jun 2011 (invited physics colloquium)

Hebrew University, Jerusalem, Israel, May 2011(astrophysics seminar)

University of North Texas, TX, Apr 2011 (invited physics colloquium)

UC Santa Barbara, CA, Mar 2011 (astrophysics seminar)

"NLTT 11748 – The first eclipsing detached double WD binary"

Tel Aviv University, Tel Aviv, Israel, Nov 2010 (astrophysics seminar)

Weizmann Institute for Science, Rehovot, Israel, Oct 2010 (astrophysics seminar)

Hebrew University, Jerusalem, Israel, Oct 2010 (astrophysics seminar)

"Hunting transiting extrasolar planets"

Tel Aviv University, Tel Aviv, Israel, Jul 2008 (Ph.D. thesis seminar)

Observing Experience

LCOGT FTN 2.0 m and FTS 2.0 m (50–100 hours per semester, 2009–2012)

Lick Observatory Shane 3 m with Hamilton (5 nights, 2011)

ESO 3.6 m with HARPS, Chile (6 nights, 2008)

OHP 1.93 m with SOPHIE, France (∼25 nights, 2007–2009)

The Wise Observatory 1 m telescope, Israel (∼50 nights, 2005–2009)

The Wise Observatory 0.46 m telescope, Israel (∼50 nights, 2005–2009)

Select Successful Proposals

Kepler Guest Observer Cycle 3 (GO30029; Science PI):
"Measurement of the Spin-Orbit Alignment in Stellar Binaries"

LSST Science Collaboration Membership Application:
"Looking for WD binaries with LSST"

Participation in Large Collaborations and Projects

Kepler - Ground-based follow-up of transiting planet candidates (Kepler Collaborator).

CoRoT - Ground-based photometric follow-up of transiting planet candidates.

HATNet - Photometric and radial velocity follow-up of transiting planet candidates.

LSST - Looking for white dwarf binaries.

Chandra ACIS Survey of M33 (ChASeM33) - Study variable X-ray sources.

Education and Public Outreach

Supervising the work of a student at LCOGT on various projects, one of them led to a publication led by the student (Fulton, Shporer, et al. 2011, AJ, 142, 84). 2010–2012.

Initiating a program at LCOGT in which Hawaiian high school students carry out photometric follow-up observations of CoRoT transiting planetary candidates, using education time at the 2 m Faulkes Telescope North. The program fully integrates education and science. 2010–2012.

Volunteering in the Tel Aviv University Astronomy Club (Astroclub). Public outreach activities include organizing public lectures in astronomy, sky observing events, and open days at the Wise Observatory, Israel. 2002–2009.

Volunteering, during army service, as a math tutor for troubled high school students, 2000–2001.

Refereed Publications

First-author Publications

10. **Shporer, A.** et al. 2012,
"On using the beaming effect to measure spin-orbit alignment in stellar binaries with Sun-like components",
New Astronomy, 17, 309

9. **Shporer, A.** et al. 2011,
"Detection of KOI-13.01 using the photometric orbit",
AJ, 142, 195

8. **Shporer, A.** & Brown, T. 2011,
"The impact of the convective blueshift effect on spectroscopic planetary transits",
ApJ, 733, 30

7. **Shporer, A.** et al. 2010,
"A ground-based measurement of the relativistic beaming effect in a detached double WD binary",
ApJL, 725, 200

6. **Shporer, A.** et al. 2010,
"Ground-based multisite observations of two transits of HD 80606b",
ApJ, 722, 880

5. **Shporer, A.** et al. 2009,
"Photometric follow-up of the Neptune-mass transiting planet GJ 436b",
ApJ, 694, 1559

4. **Shporer, A.** et al. 2009,
"HAT-P-9b: A low density planet transiting a moderately faint F star",
ApJ, 690, 1393

3. **Shporer, A.** et al. 2007,
"Photometric follow-up of the transiting planet around WASP-1",
MNRAS, 376, 1296

2. **Shporer, A.** et al. 2007,
"Photometric analysis of the optical counterpart of the black hole HMXB M33 X-7",
A&A, 462, 1091

1. **Shporer, A.** & Mazeh, T. 2006,
"Long-term V-band monitoring of the bright stars of M33 at the Wise Observatory",
MNRAS, 370, 1429

Second and Third-Author Publications

9. Barnes, J. W., Linscott, E., **Shporer, A.** 2011
"Measurement of the spin-orbit misalignment of KOI-13.01 from its gravity-darkened Kepler transit lightcurve",
ApJS, 197, 10

8. Fulton, B. J., **Shporer, A.** et al. 2011,
"Long-term transit monitoring and refined light curve parameters of HAT-P-13b",
AJ, 142, 84

7. Steinfadt, J., Kaplan D., **Shporer, A.** et al. 2010,
"Discovery of the eclipsing detached double white dwarf binary NLTT 11748",
ApJL, 716, 146

6. Hirano, T., Narita, N., **Shporer, A.** et al. 2010,
"A possible tilted orbit of the super-Neptune HAT-P-11b",
PASJ, 63, 531

5. Deeg, H. J., Gillon, M., **Shporer, A.** et al. 2009,
"Ground-based photometry of space-based transit detections:
Photometric follow-up of the CoRoT mission",
A&A, 506, 343

4. Winn, J. N., Holman, M. J., **Shporer, A.** et al. 2008,
"The transit light curve project. VIII. Six occultations of the exoplanet TrES-3",
AJ, 136, 267

3. Brosch, N., Polishook, D., **Shporer A.** et al. 2008,
"The Centurion 18-inch telescope of the Wise Observatory",
Ap&SS, 314, 163

2. Loeillet, B., **Shporer, A.** et al. 2008,
"Refined parameters and spectroscopic transit of the super-massive planet HD 147506b",
A&A, 481, 529

1. Bakos, G. A., **Shporer, A.** et al. 2007,
"HAT-P-5b: A Jupiter-like hot Jupiter transiting a bright star",
ApJL, 671, 173

Other Select Publications

- Welsh, W. et al. 2012,
  "Transiting circumbinary planets Kepler-34 b and Kepler-35 b",
  Nature, 481, 475

- Borucki, W. J. et al. 2012,
  "Kepler-22b: A 2.4 Earth-radius Planet in the Habitable Zone of a Sun-like Star",
  ApJ, 745, 120

- Lissauer, J. J. et al. 2011,
  "Architecture and dynamics of Kepler's candidate multiple transiting planet systems",
  ApJS, 197, 8

- Winn, J. N. et al. 2011,
  "Spin-orbit alignment for the circumbinary planet host Kepler-16 A",
  ApJL, 741, 1

- Doyle, L. R. et al. 2011,
  "Kepler-16: A transiting circumbinary planet",
  Science, 333, 1602

- Borucki, W. J. et al. 2011,
  "Characteristics of planetary candidates observed by Kepler. II. Analysis of the first four months of data",
  ApJ, 736, 19

- Tullmann, R. et al. 2011,
  "The Chandra ACIS Survey of M33 (ChASeM33): The final source catalog",
  ApJS, 193, 31

- Howard, A. W. et al. 2011,
  "Planet occurrence within 0.25 AU of Solar-type stars from Kepler",
  ApJ, submitted (arXiv:1103.2541)

- Gould, A. et al. 2010,
  "Frequency of Solar-like systems and of ice and gas giants beyond the snow line from high-magnification microlensing events in 2005-2008",
  ApJ, 720, 1073

- Deeg, H. J. et al. 2010,
  "A transiting giant planet with a temperature between 250 K and 430 K",
  Nature, 464, 384

- Leger, A. et al. 2009,
  "Transiting exoplanets from the CoRoT space mission.
  VIII. CoRoT-Exo-7b: The first super-Earth with measured radius",
  A&A, 506, 287

- Pont, H. et al. 2009,
  "The spin-orbit angle of the transiting hot Jupiter CoRoT-1b",
  MNRAS, 402, 1

- Pietsch, W. et al. 2009,
  "Detection of the second eclipsing high mass X-ray binary in M 33",
  ApJ, 694, 449

- Deleuil, M. et al. 2008,
  "Transiting exoplanets from the CoRoT space mission.
  VI. CoRoT-Exo-3b: The first secure inhabitant of the Brown-dwarf desert",
  A&A, 491, 889

- Alonso, R. et al. 2008,
  "Transiting exoplanets from the CoRoT space mission.
  II. CoRoT-Exo-2b: A transiting planet around an active G star",
  A&A, 482, 21

- Bakos, G. et al. 2007,
  "HD 147506b: A supermassive planet in an eccentric orbit transiting a bright star",
  ApJ, 670, 826

- Orosz, J. et al. 2007,
  "A 15.65 $M_{\odot}$ black hole in an eclipsing binary in the nearby spiral galaxy Messier 33",
  Nature, 449, 872

- Gillon, M. et al. 2007,
  "Detection of transits of the nearby hot Neptune GJ 436b",
  A&A, 472, 13

- Winn, J. N. et al. 2007,
  "The transit light curve project. V. System parameters and stellar rotation period of HD 189733",
  AJ, 133, 1828

Non-Refereed Publications

Conference Proceedings

4. **Shporer, A.** et al. 2010,
"The LCOGT Network", in "The astrophysics of planetary systems: Formation, structure, and dynamical evolution", IAU Symposium No. 276 (arXiv:1011.6394)

3. **Shporer, A.** et al. 2009,
"The WHAT Project", in "Transiting planets", IAU Symposium No. 253, 331

2. **Shporer, A.** et al. 2007,
"Searching for variables in one of the WHAT fields" in "Transiting extrasolar planets workshop" Eds: C. Afonso, D. Weldrake & T. Henning, ASP Conference Series, Vol. 366, p. 99 (astro-ph/0612112)

1. **Shporer, A.** et al. 2006,
"The WHAT project" in "Tenth anniversary of 51 Peg-b: Status of and prospects for hot Jupiter studies." Eds. L. Arnold, F. Bouchy and C. Moutou. Paris: Frontier Group, p. 196 (astro-ph/0510766)

Astronomical Circulars and Bulletins

4. **Shporer, A.** et al. 2010,
"No eclipses in the double WD binary SDSS J125733.63+542850.5",
Atel 2778

3. **Shporer, A.** et al. 2006,
"Optical modulation of the new eclipsing XRB in M33",
ATel 913

2. Pietsch, W., Plucinsky, P., Haberl, F., **Shporer, A.**, Mazeh T. 2006,
"Detection of the second eclipsing XRB in M33 by Chandra",
ATel 905

1. **Shporer, A.**, Ofek, E. O., Mazeh, T. 2003,
"Possible nova in M33",
IAU Circ. 8199