

# AMIR CASPI

Senior Research Scientist  
Southwest Research Institute

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## CURRENT RESEARCH and INTERESTS:

- High-energy solar physics, especially particle acceleration, energy transport, and plasma heating resulting from the explosive release of energy in magnetized plasma during solar eruptive events (flares and coronal mass ejections), particularly using X-ray and extreme ultraviolet (EUV) remote sensing observations.
- The relation of energetic processes on the Sun to similar processes elsewhere, e.g., stellar flares, magnetar bursts, accretion disk flares, planetary magnetotail reconnection, etc.
- The effects of solar variability and solar eruptive events on the heliosphere, including space weather and its interaction with Earth and other planets, e.g., relativistic particle storms, auroral X-rays, ionospheric effects, etc.
- Developing new instrumentation and mission concepts to further studies of the above

## EDUCATION:

- Ph.D.* University of California, Berkeley (2010 May)  
Physics  
*Dissertation: Super-hot ( $T > 30$  MK) Thermal Plasma in Solar Flares*  
*Ph.D. Advisor: Robert P. Lin*
- M.A.* University of California, Berkeley (2010 May)  
Physics
- B.S.* University of Maryland, College Park (2001 May)  
Physics (*High Honors, cum laude*)  
Astronomy (*High Honors, cum laude*)  
Computer Science & Mathematics (*Honors, cum laude*)  
*University Honors Citation (1998 December)*

## WORK EXPERIENCE:

- 2016–present* **Senior Research Scientist** – Southwest Research Institute, Boulder
- 2014–2016* **Research Scientist** – Southwest Research Institute, Boulder  
Analyzing data from EVE, RHESSI, & MinXSS, emphasizing solar flares (energetics, super-hot thermal plasma, electron acceleration), coronal heating & temperature distributions, and the influence of coronal X-ray/EUV emission on geospace; Co-I of MinXSS CubeSats; PI of SMASH (Antarctic balloon piggyback); PI of NASA WB-57 airborne 2017 total solar eclipse mission; Co-I & STC Instrument Scientist for FOXSI SMEX (Phase A); Systems Engineer for B-SSIPP (balloon-borne solar pointing platform); support for RAISE sounding rocket 2017 launch
- 2011–2014* **Research Associate** – Laboratory for Atmospheric & Space Physics (LASP), Univ. of CO, Boulder  
Analyzed EUV & X-ray data from EVE & RHESSI, emphasizing solar flares,

flare energetics, super-hot thermal plasma, & electron acceleration; Co-I of 3U MinXSS CubeSat for solar soft X-ray observations; instrument scientist for GOES-R series EXIS (EUV & X-ray Irradiance Sensors); Co-I of two EVE calibration rocket underflights with new solar X-ray instrumentation

- 2010–2011*    **Postdoctoral Scholar** – Space Sciences Lab, Univ. of CA, Berkeley  
Analyzed data from RHESSI, emphasizing hard X-rays from solar flares, flare energetics, super-hot thermal plasma, and electron acceleration, in continuation of graduate work
- 2001–2010*    **Graduate Student Researcher** – Space Sciences Lab, Univ. of CA, Berkeley  
Studied solar flares, incl. thermal plasma and electron acceleration, focusing on the study of super-hot plasma via RHESSI X-ray spectra and images; investigated concepts for hard X-ray spectro-polarimetry; performed extensive data-driven calibration of RHESSI low-energy response for highly accurate spectroscopy below 10 keV; performed lab tests to determine post-anneal performance of RHESSI germanium detectors

### **TEACHING EXPERIENCE:**

- 2014–2017*    **Ph.D. dissertation committee** – Christopher S. Moore, Univ. of CO, Boulder  
External member; Ph.D. dissertation in solar flare X-ray studies and technology development of high-reflectivity UV optical coatings for astrophysics
- 2012–2016*    **Assistant Ph.D. advisor** – James P. Mason, Univ. of CO, Boulder  
Providing science mentorship and guidance for studies of solar flares and coronal mass ejections, under primary advisorship of Dr. Thomas N. Woods
- 2012–2014*    **Mentor, guest lecturer** – Aerospace Eng. Sci. Dept., Univ. of CO, Boulder  
CubeSat Graduate Student Projects – mentoring and advising graduate students on development of [funded] NASA CubeSat for solar flare X-ray observations (MinXSS: Miniature X-ray Solar Spectrometer)
- 2012–2014*    **Mentor** – Research Experience for Undergraduates (REU), Univ. of CO, Boulder
- Christina Wilson (Wichita State Univ., aerospace) – IDL programming for CubeSat data processing and end-to-end testing
  - Seth Folley (St. Mary’s Univ., physics) – programming and performance testing of CubeSat electrical power system
  - Jordan Stone (Univ. of AR, Fayetteville, physics) – analysis of solar soft X-ray data from Amptek X123 on June 2012 SDO/EVE sounding rocket
- 2007, fall*    **Graduate Reader** – Physics Dept., Univ. of CA, Berkeley  
Physics 242A: Theoretical Plasma Physics
- 2003, fall*    **Graduate Student Instructor** – Astronomy Dept., Univ. of CA, Berkeley  
Astro 10: Introduction to General Astronomy (2 sections)
- 2001, spring*    **Undergraduate Teaching Assistant** – Astronomy Dept., UMD, College Park  
Astro 430: The Solar System
- 2001, spring*    **Undergraduate Grader** – Physics Dept., Univ. of Maryland, College Park  
Physics 161: General Physics: Mechanics and Particle Dynamics

1997–2001 **Instructor** – Sleiman Technologies, Inc. – Falls Church, VA  
 Taught computer programming in C/C++/Perl/UNIX at George Washington University’s Center for Career Education in Washington, D.C., including development of a custom curriculum, class projects, and exams

**PROFESSIONAL SOCIETIES:**

2003–present American Astronomical Society, Solar Physics Division

2002–present American Geophysical Union

**REFEREED PUBLICATIONS – published or submitted:**

24. Kaufmann, P., Abrantes, A., Bortolucci, E. C., **Caspi, A.**, Fernandes, L. O. T., Francile, C., Kropotov, G. I., Kudaka, A. S., Laurent, G., Machado, N., Marcon, R., Marun, A., Morosi, A., Nicolaev, V., Pereyra, P., Hidalgo Ramirez, R. F., Raulin, J.-P., Saint-Hilaire, P., Shih, A. Y., Silva, C. M., & Timofeevsky, A. 2017, “The THz Solar Flare Balloon Experiment (SO-LAR-T).” *Experimental Astronomy*, submitted
23. Mason, J. P., Baumgart, M., Rogler, B., Downs, C., Williams, M., Woods, T. N., Palo, S., Chamberlin, P. C., Solomon, S., Jones, A., Li, X., Kohnert, R., & **Caspi, A.** 2018, “*MinXSS-1* CubeSat On-Orbit Pointing and Power Performance: The First Flight of the Blue Canyon Technologies XACT 3-axis Attitude Determination and Control System.” *J. Small Sat.*, **6**, 651 [arXiv:1706.06967]
22. Moore, C. S., **Caspi, A.**, Woods, T. N., Chamberlin, P. C., Dennis, B. R., Jones, A. R., Schwartz, R. A., Mason, J. P., & Tolbert, A. K. 2018, “The Instruments and Capabilities of the *Miniature X-ray Solar Spectrometer (MinXSS)* CubeSats.” *Solar Physics*, **293**, 21 [DOI: 10.1007/s11207-018-1243-3]
21. Marsh, A. J., Smith, D. M., Glesener, L., Hannah, I. G., Grefenstette, B. W., **Caspi, A.**, Krucker, S., Hudson, H. S., Madsen, K. K., White, S. M., Kuhar, M., Boggs, S. E., Christensen, F. E., Craig, W. W., Hailey, C. J., Harrison, F. A., Stern, D., & Zhang, W. W. 2017, “First *NuSTAR* limits on quiet Sun hard X-ray transient events.” *Astrophys. J.*, **849**, 131 [DOI: 10.3847/1538-4357/aa9122]
20. Aschwanden, M. J., **Caspi, A.**, Cohen, C. M. S., Holman, G., Jing, J., Kretzschmar, M., Kontar, E. P., McTiernan, J. M., Mewaldt, R. A., O’Flannagain, A., Richardson, I. G., Ryan, D., Warren, H. P., & Xu, Y. 2017, “Global Energetics of Solar Flares: V. Energy Closure in Flares and Coronal Mass Ejections.” *Astrophys. J.*, **836**, 17 [DOI: 10.3847/1538-4357/836/1/17]
19. Woods, T. N., **Caspi, A.**, Chamberlin, P. C., Jones, A., Kohnert, R., Mason, J. P., Moore, C. S., Palo, S., Rouleau, C., Solomon, S. C., Machol, J., & Viereck, R. 2017, “New Solar Irradiance Measurements from the *Miniature X-Ray Solar Spectrometer* CubeSat.” *Astrophys. J.*, **835**, 122 [DOI: 10.3847/1538-4357/835/2/122]
18. Aschwanden, M. J., Holman, G., O’Flannagain, A., **Caspi, A.**, McTiernan, J. M., & Kontar, E. 2016, “Global Energetics of Solar Flares: III. Nonthermal Energies.” *Astrophys. J.*, **832**, 27 [DOI: 10.3847/0004-637X/832/1/27]
17. Grefenstette, B. W., Glesener, L., Krucker, S., Hudson, H., Hannah, I. G., Smith, D. M., Vogel, J. K., White, S., Madsen, K. K., Marsh, A. J., **Caspi, A.**, Chen, B., Shih, A., Kuhar, M., Boggs, S. E., Christensen, F. E., Craig, W. W., Forster, K., Hailey, C. J., Harrison, F. A.,

- Miyasaka, H., Stern, D., & Zhang, W. W. 2016, "The First Focused Hard X-ray Images of the Sun with *NuSTAR*." *Astrophys. J.*, **826**, 20 [DOI: 10.3847/0004-637X/826/1/20]
16. Lin, C. Y., Bailey, S. M., Jones, A. R., Woodraska, D., Woods, T. N., Eparvier, F. G., **Caspi, A.**, Wieman, S. R., & Didkovsky, L. V. 2016, "Soft X-ray irradiance measured by the Solar Aspect Monitor on the *Solar Dynamics Observatory* Extreme ultraviolet Variability Experiment." *J. Geophys. Res.: Space Phys.*, **121**, 3648 [DOI: 10.1002/2015JA021726]
  15. Mason, J. P., Woods, T. N., **Caspi, A.**, Chamberlin, P., Moore, C., Jones, A., Kohnert, R., Li, X., Palo, S., & Solomon, S. 2016, "*Miniature X-ray Solar Spectrometer (MinXSS) – A Science-Oriented, University 3U CubeSat.*" *J. Spacecraft Rockets*, **53**, 328 [DOI: 10.2514/1.A33351]
  14. Hannah, I. G., Grefenstette, B. W., Smith, D. M., Glesener, L., Krucker, S., Hudson, H. S., Madsen, K. K., Marsh, A., White, S. M., **Caspi, A.**, Shih, A. Y., Harrison, F. A., Stern, D., Boggs, S. E., Christensen, F. E., Craig, W. W., Hailey, C. J., & Zhang, W. W. 2016, "The first X-ray imaging spectroscopy of quiescent solar active regions with *NuSTAR*." *Astrophys. J. Lett.*, **820**, L14 [DOI: 10.3847/2041-8205/820/1/L14]
  13. Doschek, G. A., Warren, H. P., Dennis, B. R., Reep, J. W., & **Caspi, A.** 2015, "Flare Footpoint Regions and a Surge Observed by the *Hinode/EUV Imaging Spectrometer (EIS)*, *RHESSI*, and *SDO/AIA*." *Astrophys. J.*, **813**, 32 [DOI: 10.1088/0004-637X/813/1/32]
  12. Aschwanden, M. J., Boerner, P., **Caspi, A.**, McTiernan, J. M., Ryan, D., & Warren, H. P. 2015, "Benchmark Test of Differential Emission Measure Codes and Multi-Thermal Energies." *Solar Phys.*, **290**, 2733 [DOI: 10.1007/s11207-015-0790-0]
  11. **Caspi, A.**, Shih, A. Y., McTiernan, J. M., & Krucker, S. 2015, "Hard X-ray imaging of individual spectral components in solar flares." *Astrophys. J. Lett.*, **811**, L1 [DOI: 10.1088/2041-8205/811/1/L1]
  10. Aschwanden, M. J., Boerner, P., Ryan, D., **Caspi, A.**, McTiernan, J. M., and Warren, H. P. 2015, "Global energetics of solar flares: II. Thermal Energies." *Astrophys. J.*, **802**, 53 [DOI: 10.1088/0004-637X/802/1/53]
  9. **Caspi, A.**, Woods, T. N., & Warren, H. P. 2015, "New observations of the solar 0.5–5 keV soft x-ray spectrum." *Astrophys. J. Lett.*, **802**, L2 [DOI: 10.1088/2041-8205/802/1/L2]
  8. Mason, J. P., Woods, T. N., **Caspi, A.**, Thompson, B. J., & Hock, R. A. 2014, "Mechanisms and Observations of Coronal Dimming for the 2010 August 7 Event." *Astrophys. J.*, **789**, 61 [DOI: 10.1088/0004-637X/789/1/61]
  7. **Caspi, A.**, McTiernan, J. M., & Warren, H. P. 2014, "Constraining solar flare differential emission measures with EVE and *RHESSI*." *Astrophys. J. Lett.*, **788**, L31 [DOI: 10.1088/2041-8205/788/2/L31]
  6. **Caspi, A.**, Krucker, S., & Lin, R. P. 2014, "Statistical properties of super-hot solar flares." *Astrophys. J.*, **781**, 43 [DOI: 10.1088/0004-637X/781/1/43]
  5. Liu, W-J., Qiu, J., Longcope, D. W., & **Caspi, A.** 2012, "Determining Heating Rates in Reconnection Formed Flare Loops of the M8.0 Flare on 2005 May 13." *Astrophys. J.*, **770**, 111 [DOI: 10.1088/0004-637X/770/2/111]

4. Trotter, G., Raulin, J.-P., Giménez de Casto, G., Lüthi, T., **Caspi, A.**, Mandrini, C. H., Luoni, M. L., & Kaufmann, P. 2011 “Origin of the submillimeter radio emission during the time-extended phase of a solar flare.” *Solar Phys.*, **273**, 339 [DOI: 10.1007/s11207-011-9875-6]
3. Fletcher, L., Dennis, B. R., Hudson, H. S., Krucker, S., Phillips, K., Veronig, A., Battaglia, M., Bone, L., **Caspi, A.**, Chen, Q., Gallagher, P., Grigis, P. T., Ji, H., Liu, W., Milligan, R. O., & Temmer, M. 2011, “An Observational Overview of Solar Flares.” *Space Sci. Rev.*, **159**, 19 [DOI: 10.1007/s11214-010-9701-8]
2. **Caspi, A.**, & Lin, R. P. 2010, “*RHESSI* line and continuum observations of super-hot flare plasma.” *Astrophys. J. Lett.*, **725**, L161 [DOI: 10.1088/2041-8205/725/2/L161]
1. **Caspi, A.** 2010, “Super-hot ( $T > 30$  MK) thermal plasma in solar flares.” *Ph.D. dissertation*, University of California, Berkeley (advisor: R. P. Lin) [arXiv: 1105.1889]

#### **REFEREED PUBLICATIONS – in preparation:**

- Plowman, J. E., & **Caspi, A.**, “A fast, simple, robust algorithm for coronal temperature reconstruction.” In prep for *Astrophys. J. Lett.*
- McTiernan, J. M., **Caspi, A.**, & Warren, H.P., “The Multi-Instrument (*EVE-RHESSI*) DEM for Solar Flares, and Implications for Non-Thermal Emission.” In prep for *Astrophys. J.*
- Caspi, A.**, *et al.*, “Chasing the 21 August 2017 total solar eclipse with NASA’s WB-57 research aircraft.” In prep for *Astrophys. J. Lett.*
- Caspi, A.**, Laurent, G. T., Shoffner, M., Higuera Caubilla, D., Meurisse, J., Smith, K., Shih, A. Y., Saint-Hilaire, P., DeForest, C. E., Mansour, N. N., & Hathaway, D. H., “First flight of SMASH, the SwRI Miniature Assembly for Solar Hard X-rays.” In prep for *Astrophys. J.*
- Buie, M., *et al.*, “Size and Shape Constraints of (486958) 2014MU69 from Three 2017 Stellar Occultation Campaigns.” In prep for *Astron. J.*
- Young, E. F., Barry, M. A., Buie, M. W., Carriazo, C., **Caspi, A.**, Cole, A. A., DeForest, C. E., Drummond, J., French, R. G., Gault, D., Giles, A. B., Giles, D., Hartig, K., Hill, K. M., Hörst, S. M., Howell, R. R., Hudson, G., Klein, V., Lavvas, P., Loader, B., Mackie, J. A., Nelson, M. J., Olkin, C. S., Regester, J., Resnick, A. C., Rodgers, T., Sicardy, B., Skrutskie, M. F., Verbiscer, A., Wasserman, L. H., Watson, C. R., & Young, L. A. 2018, “Pluto’s evolving haze opacity from 2002 – 2015: correlation to solar activity.” In prep for *Icarus*

#### **PROPOSALS FUNDED or PENDING:**

- Caspi, A. (PI)**, Allred, J. C. (Co-I), Shih, A. Y. (Co-I), Martínez Oliveros, J. C. (Co-I), & Rubio da Costa, F. (Co-I) 2017, “Studying Ion-Driven Flare Heating from Acceleration Models to Multi-Wavelength Observations.” NASA *Heliophysics Supporting Res.* (**pending**; 3 yrs)
- Caspi, A. (PI)**, Warren, H. P. (Co-I), McTiernan, J. M. (Co-I), & Laming, J. M. (Co-I) 2017, “Using Abundance Variations to Probe Thermal Processes in the Solar Atmosphere.” NASA *Heliophysics Guest Investigators* (**pending**; 3 yrs)
- Miralles, M. P. (PI), Murphy, N. (Co-I), **Caspi, A. (Co-I)**, & Guidoni, S. (Co-I) 2017, “The Impact of the Magnetic Field Configuration on Energy Transport in Solar Flares.” NASA *Heliophysics Guest Investigators* (**pending**; 3 yrs)
- Panchapakesan, S. A. (PI), **Caspi, A. (Co-I)**, & Glesener, L. (Co-I) 2017, “X-ray Observations

- of Flare Heating by Accelerated Electrons.” NASA *Heliophysics Guest Investigators* (**pending**; 3 yrs)
15. Christe, S. D. (PI), Shih, A. Y. (DPI), Krucker, S. (Co-I), Glesener, L. (Co-I), Saint-Hilaire, P. (Co-I), Gubarev, M. (Co-I), **Caspi, A. (Co-I)**, Woods, T. N. (Co-I), Gburek, S. (Co-I), Allred, J. C. (Co-I), Battaglia, M. (Co-I), Drake, J. (Co-I), Goetz, K. (Co-I), Grefenstette, B. (Co-I), Hannah, I. G. (Co-I), Holman, G. (Co-I), Hudson, H. S. (Co-I), Inglis, A. (Co-I), Ireland, J. (Co-I), Ishikawa, S-n. (Co-I), Klimchuk, J. (Co-I), Kontar, E. (Co-I), Massone, A. M. (Co-I), Piana, M. (Co-I), Ramsey, B. (Co-I), Schwartz, R. (Co-I), Steślicki, M. (Co-I), Turin, P. (Co-I), White, S. (Co-I), Chen, B. (Collab.), Gary, D. (Collab.), Kowalski, A. (Collab.), Warmuth, A. (Collab.), Veronig, A. (Collab.), Vilmer, N. (Collab.), & Manthripragada, S. (PM) 2016, “Focusing Optics X-ray Solar Imager (FOXSI).” NASA *2016 Heliophysics Small Explorer* (**funded [Phase A]**: \$1.25M; 11 mos)
  14. Muñoz, A. (PI), & **Caspi, A. (Co-I)** 2017, “Using Machine Learning to Forecast the Solar Extreme Ultra-Violet Spectrum.” SwRI *Internal Research & Development (QuickLook)* (15.R8774: \$49,914; 4 mos)
  13. Tsang, C. (PI), **Caspi, A. (Co-I)**, & DeForest, C. (Co-I) 2017, “The Analysis of Unique Small Aperture Data for Airborne Astronomy.” SwRI *Internal Research & Development (QuickLook)* (15.R8767: \$49,866; 4 mos)
  12. Hassler, D. (PI), **Caspi, A. (Co-I)**, Laurent, G. (Co-I), & Graham, R. (Co-I) 2017, “Capability Development and Demonstration for Sounding Rocket Research.” SwRI *Internal Research & Development (QuickLook)* (15.R8763: \$50,000; 4 mos)
  11. Plowman, J. E. (PI), **Caspi, A. (Co-I)**, DeForest, C. E. (Co-I), Bradshaw, S. (Co-I), & Klimchuk, J. (Co-I) 2016, “Understanding the Distribution of Small-Scale Impulsive Coronal Heating Events.” NASA *Heliophysics Supporting Res.* (80NSSC17K0598: \$811,083; 3 yrs)
  10. **Caspi, A. (PI)**, Tsang, C. (Co-I), DeForest, C. E. (Co-I), Seaton, D. (Co-I), Bryans, P. (Co-I), Steffl, A. (Collab.), Durda, D. (Collab.), Judge, P. (Collab.), Tomczyk, S. (Collab.), Burkepille, J. (Collab.), DeLuca, E. (Collab.), Golub, L. (Collab.), Zhukov, A. (Collab.), West, M. (Collab.), & Gallagher, P. (Collab.) 2016, “Chasing the 2017 Eclipse: Interdisciplinary Airborne Science with NASA’s WB-57.” NASA *Interdisciplinary Science For Eclipse 2017* (NNX17AH38G: \$150,962; 1 yr)
  9. Woods, T. N. (PI), **Caspi, A. (Co-I)**, Chamberlin, P. C. (Co-I), Jones, A. R. (Co-I), Kohnert, R. (Co-I), Mason, J. P. (Co-I), Palo, S. E. (Co-I), Solomon, S. (Co-I), & Warren, H. P. (Co-I) 2016, “Solar Cycle Studies for the Miniature X-ray Solar Spectrometer (MinXSS) CubeSat Missions.” NASA *Heliophysics Technology & Instrument Development for Science* (NNX17AI71G: \$2.2M; 5 yrs)
  8. **Caspi, A. (PI)**, & DeForest, C. (Co-I) 2015, “Demonstration Flight of New Technology for Solar Hard X-ray Spectroscopy for Future CubeSat Missions.” SwRI *Internal Research & Development (Applied Research)* (15.R8565: \$278,244; 1 yr)
  7. **Caspi, A. (PI)** 2015, “Laboratory Calibration and Environmental Testing of New Hard X-ray Spectrometer for Future CubeSat Missions.” SwRI *Internal Research & Development (QuickLook)* (15.R8558: \$49,860; 4 mos)
  6. Thompson, B. J. (PI), **Caspi, A. (Co-I)**, Krista, L. D. (Co-I), Mason, J. P. (Co-I), Reinard, A.

- A. (Co-I), & Webb, D. F. (Co-I) 2014, “An Investigation of Coronal Dimming and their relationship to CMEs.” *NASA Heliophysics Supporting Res.* (NNX15AQ68G: \$533,075; 3 yrs)
5. Woods, T. (PI), **Caspi, A. (Co-I)**, Chamberlin, P. (Co-I), Jones, A. (Co-I), Kohnert, R. (Co-I), Li, X. (Co-I), Palo, S. (Co-I), & Solomon, S. (Co-I) 2013, “Miniature X-ray Solar Spectrometer (MinXSS) CubeSat Mission.” *NASA Heliophysics Technology and Instrument Development for Science (Low Cost Access to Space)* (NNX14AN84G: \$1,050,362; 3 yrs)
4. Randall, C. (PI), Woods, T. (Co-I), **Caspi, A. (Co-I)**, Harvey, V. L. (Co-I), Kinnison, D. (Co-I), Liu, H.-L. (Co-I), Marsh, D. (Co-I), Qian, L. (Co-I), Solomon, S. (Co-I), Coster, A. (Co-I), Jackman, C. (Co-I), Funke, B. (Collab.), Langematz, U. (Collab.), Matthes, K. (Collab.), Schmidt, H. (Collab.), Seppala, A. (Collab.), Sinnhuber, M. (Collab.), Verronen, P. (Collab.), 2013, “Response of the Atmosphere to Impulsive Solar Events (RAISE).” *NASA Heliophysics Living With a Star Science* (NNX14AH54G: \$2,281,126; 4 yrs)
3. Qiu, J. (PI), Longcope, D. (Co-I), **Caspi, A. (Co-I)** 2013, “Energetics of flare heating from magnetic reconnection.” *NASA Heliophysics Guest Investigators* (NNX14AC06G: \$382,072; 3 yrs)
2. **Caspi, A. (PI)**, McTiernan, J. (Co-I), & Warren, H. (Collab.) 2011, “Determining Temperature Distributions in Solar Flares with RHESSI and EVE.” *NASA Heliophysics Guest Investigators* (NNX12AH48G + NNX15AK26G: \$250,563; 3 yrs)
1. McTiernan, J. (PI), & **Caspi, A. (Grad)** 2007, “Thermal Soft X-ray Spectroscopy with RHESSI.” *NASA Heliophysics Guest Investigators* (NNX08AJ18G: \$215,101; 3 yrs)

### **AWARDS and HONORS:**

- 2016, Aug. AIAA Small Satellite Mission of the Year, *MinXSS* Team
- 2016, Jul. Antarctica Service Medal
- 2016, Mar. NASA R.H.G. Exceptional Achievement for Science Award, *SDO* Team
- 2014, Jul. NASA Group Achievement Award, *GOES-R* EXIS Instrument Dev. Team
- 2013, Aug. NASA Group Achievement Award, *RHESSI* Science and Data Analysis Team
- 2013, May *GOES-R* Project Significant Achievement Award, EXIS Team
- 2013, Mar. Metcalf Lecturer/Fellow (LWS *SDO* Workshop, Cambridge, MD)
- 2012, Dec. NASA LWS Workshop Travel Award (*RHESSI/SDO* Workshop, Petaluma, CA)
- 2012, Aug. NASA Group Achievement Award, *SDO* Science Investigation Team
- 2007, Mar. Outstanding Student Paper, AGU 2006 Fall Meeting (Abstract #SH43B-1528)
- 2006, Jun. AAS/SPD Summer School Fellow
- 2004, Feb. Outstanding Student Paper, AGU 2003 Fall Meeting (Abstract #SH22A-0170)
- 2003 *RHESSI* Project Recognition Award, Outstanding Data Analysis
- 2003, Jun. AAS/SPD Studentship Award
- 2001–2002 Graduate Research Fellow, Spaces Sciences Lab, Univ. of California, Berkeley
- 2000–2001 Exel Scholar, Univ. of Maryland, College Park
- 2000 Who’s Who Among Students in American Universities and Colleges
- 1999, summer Senior Summer Scholar, Univ. of Maryland, College Park
- 1996–2000 Banneker/Key Scholar, Univ. of Maryland, College Park
- 1996–2000 Maryland Distinguished Scholar

**Honor Society Memberships:** Phi Beta Kappa, Sigma Pi Sigma, Omicron Delta Kappa, Phi Eta Sigma, Mortar Board, Pi Mu Epsilon, Phi Kappa Phi, Golden Key, Alpha Lambda Delta

**INVITED TALKS, SEMINARS, and COLLOQUIA:**

“Solar Science from Air and Space: Coronal Observations with Cubesats & High-Altitude Aircraft.” Presented at:

- JAXA Institute of Space & Aeronautical Science – Hinode seminar (*Feb. 2018*)
- National Astronomical Observatory of Japan – Solar & Space Plasma seminar (*Feb. 2018*)

“Science at 50,000 feet: Chasing the 2017 total solar eclipse with NASA’s WB-57s.” Southwest Research Institute, Boulder – Planetary Science Directorate lunch seminar (*Nov. 2017*)

“NASA WB-57 Airborne Observations of the 2017 Total Solar Eclipse.” National Solar Observatory – Solar Focus Group meeting (Boulder, CO; *Nov. 2017*)

“NASA Antarctica: Exploration and science at the ends of the Earth.” Denver ComicCon 2017 (Denver, CO; *Jul. 2017*)

“Recent Results from the MinXSS-1 CubeSat (and outlook for MinXSS-2).” Boulder Solar Day 2017 (Boulder, CO; *Apr. 2017*)

“State of the Art: MinXSS CubeSat Performance ... and CubIXSS future needs.” KISS Workshop on Optical Communication on SmallSats: Enabling the Next Era in Space Science – Part 2 (Pasadena, CA; *Feb. 2017*)

“Some Like it Hot: plasma heating & impulsive energy release in the solar corona.” Presented at:

- Southwest Research Institute, Boulder – Planetary Science Directorate colloq. (*Aug. 2016*)
- Boston University – Astronomy Dept., Space Physics seminar (*Mar. 2016*)

“New Instruments for Spectrally-Resolved Solar Soft X-ray Observations from CubeSats (and Larger Missions).” Hinode 9<sup>th</sup> workshop (Belfast, N. Ireland; *Sep. 2015*)

“Solar X-ray CubeSats.” Southwest Research Institute, Boulder – Planetary Science Directorate lunch seminar (*May 2015*)

“Measuring Solar Soft X-ray Emission and the Coronal Temperature Distribution.” Boulder Solar Day 2015 (Boulder, CO; *Mar. 2015*)

“New CubeSats for solar X-ray observations: MinXSS & CubIXSS.” NASA Ames Research Center – Heliophysics Modeling & Simulation Group seminar (*Mar. 2015*)

“Thermal processes in the solar corona.” Presented at:

- Lockheed Martin Corp. – Solar and Astrophysics Laboratory seminar (*Mar. 2015*)
- NASA Ames Research Ctr. – Heliophysics Modeling & Simulation Group sem. (*Mar. 2015*)
- Harvard-Smithsonian Ctr. for Astrophysics – Solar & Stellar X-ray Group sem. (*Feb. 2015*)
- Boston University – Astronomy Dept., Space Physics seminar (*Feb. 2015*)
- Southwest Research Institute, San Antonio – Space Science & Eng. Div. colloq. (*Nov. 2014*)
- Southwest Research Institute, Boulder – Planetary Science Directorate colloq. (*Jul. 2014*)
- Univ. of Colorado, Boulder – Lab. for Atmospheric and Space Physics colloq. (*Mar. 2014*)
- Tel Aviv University, Israel – Geophysics and Planetary Sciences Dept. seminar (*Mar. 2014*)



- “CubeSats: overview and enabling technologies for solar observations.” RHESSI 13<sup>th</sup> Workshop (Windisch, Switzerland; *Apr. 2014*)
- “Coronal plasma heating in the flaring and quiescent sun.” Huntsville Workshop 2014 (Orlando, FL; *Mar. 2014*)
- “Super-hot ( $T > 30$  MK) thermal plasma in solar flares.” West Virginia Univ., Morgantown – Physics Dept. colloquium (*Apr. 2013*)
- “Some Like it (super)Hot.” Univ. of California, Berkeley – Space Sciences Lab.; BobFest, a one-day colloquium celebrating the science of Bob Lin and RHESSI (*Feb. 2012*)
- “Super-hot ( $T > 30$  MK) thermal plasma in solar flares.” Presented at:
- Univ. of New Hampshire, Durham – Physics Dept. and Institute for the Study of Earth, Oceans, and Space; Space Physics Group seminar (*Apr. 2011*)
  - Harvard-Smithsonian Ctr. for Astrophysics – Solar & Stellar X-ray Group sem. (*Apr. 2011*)
  - Univ. of Colorado, Boulder – Laboratory for Atmospheric and Space Physics; Solar Influences Group seminar (*Mar. 2011*)
  - Nat’l. Center for Atmospheric Research – High Altitude Observatory seminar (*Mar. 2011*)
  - Lockheed Martin Corp. – Solar and Astrophysics Laboratory seminar (*Feb. 2011*)
  - Montana State Univ., Bozeman – Physics Dept.; Solar Physics Group seminar (*Nov. 2010*)
  - Jet Propulsion Laboratory – Science Division; Astrophysics and Space Sciences Section colloquium (*Oct. 2010*)
  - NASA Marshall Space Flight Center and Univ. of Alabama, Huntsville Center for Space Plasma and Aeronomic Research – Solar Physics Group seminar (*Sep. 2010*)
  - Univ. of California, Berkeley – Physics Dept.; 290B (Space Physics) Seminar (*Aug. 2010*)
  - NASA Goddard Space Flight Center – Heliophysics Division colloquium (*Aug. 2010*)
  - Johns Hopkins Univ. Applied Physics Lab. – Space Dept.; Heliophysics colloq. (*Aug. 2010*)
  - Naval Research Laboratory – Space Science Division colloquium (*Aug. 2010*)
- “23 July 2002: Calibration and results – two thermal components.” NASA Goddard Space Flight Center – Heliophysics Science Division; Solar Physics Group seminar (*Dec. 2009*)
- “Pitfalls and potential of RHESSI spectroscopy below  $\sim 20$  keV.” NASA Goddard Space Flight Center – Heliophysics Science Division; Solar Physics Group seminar (*Feb. 2009*)
- “Super-hot thermal plasmas in solar flares.” Univ. of California, Berkeley – Physics Dept.; 290B (Space Physics) Seminar (*Apr. 2007*)
- “Measuring the temperature of hot solar flare plasma with RHESSI.” Univ. of California, Berkeley – Physics Dept.; 290B (Space Physics) Seminar (*Apr. 2006*)
- “Pre-impulsive hard X-ray emission from coronal sources.” NASA Goddard Space Flight Center – Heliophysics Science Division; Solar Physics Group seminar (*Dec. 2005*)
- “Analyzing high-temperature solar flare plasmas with RHESSI.” Univ. of California, Berkeley – Physics Dept.; 290B (Space Physics) Seminar (*May 2004*)

**NON-REFEREED PUBLICATIONS and TECHNICAL DOCUMENTS:**

12. Tsang, C., **Caspi, A.**, & DeForest, C. E. 2017, “Final Report: The Analysis of Unique Small-Aperture Data for Airborne Astronomy.” Technical report for SwRI IR&D project 15.R8767

11. **Caspi, A.**, Laurent, G. T., Shoffner, M., & DeForest, C. E. 2017, “Final Report: Demonstration Flight of New Technology for Solar Hard X-ray Spectroscopy for Future CubeSat Missions.” Technical report for SwRI IR&D project 15.R8565
10. **Caspi, A.**, Shih, A. Y., & Warren, H. P. 2016, “Diagnosing Coronal Heating Processes with Spectrally Resolved X-ray Measurements.” White paper for the *Next Generation Solar Physics Mission Scientific Objectives Team* [arXiv: 1701.00619]
9. Christe, S., Krucker, S., Glesener, L., Shih, A. Y., Saint-Hilaire, P., **Caspi, A.**, Allred, J., Battaglia, M., Chen, B., Drake, J., Dennis, B., Gary, D., Gburek, S., Goetz, K., Grefenstette, B., Gubarev, M., Hannah, I., Holman, G., Hudson, H., Inglis, A., Ireland, J., Ishikawa, S., Klimchuk, J., Kontar, E., Kowalski, A., Longcope, D., Massone, A., Musset, S., Piana, M., Ramsey, B., Ryan, D., Schwartz, R., Stęślicki, M., Turin, P., Warmuth, A., Wilson-Hodge, C., White, S., Veronig, A., & Vilmer, N. 2016, “Exploring impulsive solar magnetic energy release and particle acceleration with focused hard X-ray imaging spectroscopy.” White paper for the *Next Gen. Solar Physics Mission Scientific Objectives Team* [arXiv: 1701.00792]
8. Christe, S., Bandler, S., DeLuca, A., **Caspi, A.**, Golub, L., Smith, R., Allred, J., Brosius, J. W., Dennis, B., & Klimchuk, J. 2016, “Solving the Coronal Heating Problem using X-ray Microcalorimeters.” White paper for the *Next Generation Solar Physics Mission Scientific Objectives Team* [arXiv: 1701.00795]
7. **Caspi, A.**, Laurent, G. T., & Shoffner, M. 2015, “Final Report: Laboratory Calibration and Environmental Testing of New Hard X-ray Spectrometer for Future CubeSat Missions.” Technical report for SwRI IR&D project 15.R8558
6. **Caspi, A.**, Woods, T. N., Jones, A., Klapetzky, M., & Thiemann, E. 2013, “EXIS/XRS Flight Model #3 Pre-Environmental SURF Calibration Report: August 2013.” LASP Agile Document #135752
5. **Caspi, A.**, Woods, T. N., Jones, A., Klapetzky, M., & Thiemann, E. 2013, “EXIS/XRS Flight Model #2 Pre-Environmental SURF Calibration Report: April 2013.” LASP Agile Document #135750
4. **Caspi, A.**, Woods, T. N., Jones, A., Klapetzky, M., & Thiemann, E. 2013, “EXIS/XRS Flight Model #1 Pre-Environmental SURF Calibration Report: July 2012.” LASP Agile Document #133495
3. **Caspi, A.**, Klapetzky, M., & Woods, T. N. 2012, “<sup>55</sup>Fe Calibration Report (using Rocket XRS).” LASP Agile Document #133072
2. **Caspi, A.**, Woods, T. N., Jones, A., Klapetzky, M., & Thiemann, E. 2012, “XRS Flight Model #1 Calibration Report: October 2011 SURF Trip.” LASP Agile Document #128270
1. Lin, R. P., **Caspi, A.**, Krucker, S., *et al.* 2010, “Solar Eruptive Events (SEE) 2020 Mission Concept.” White paper for *Heliophysics Decadal Survey for 2013-2022* [arXiv: 1311.5243]

#### **CONFERENCE PROCEEDINGS:**

4. Kaufmann, P., Abrantes, A., Bortolucci, E. C., **Caspi, A.**, Fernandes, L. O. T., Kropotov, G., Kudaka, A. S., Laurent, G., Machado, N., Marcon, R., Marun, A., Nicolaev, V., Hidalgo Ramirez, R. F., Raulin, J.-P., Saint-Hilaire, P., Shih, A., Silva, C. M., & Timofeevsky, A. 2016, “THz solar observations on board of a trans-Antarctic stratospheric balloon flight.”

*41st International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz)*, H3A.3 [DOI: 10.1109/IRMMW-THz.2016.7758395]

3. Duncan, N., Saint-Hilaire, P., Shih, A. Y., Hurford, G. J., Bain, H. M., Amman, M., Mochizuki, B. A., Hoberman, J., Olson, J., Maruca, B. A., Godbole, N. M., Smith, D. M., Sample, J., Kelley, N. A., Zoglauer, A., **Caspi, A.**, Kaufmann, P., Boggs, S., & Lin, R. P. 2016, "First flight of the *Gamma-Ray Imager/Polarimeter for Solar flares (GRIPS)* instrument." *Proc. SPIE 9905: Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray*, 99052Q [DOI: 10.1117/12.2233859]
2. Moore, C. S., Woods, T. N., **Caspi, A.**, & Mason, J. P. 2016, "The *Miniature X-ray Solar Spectrometer (MinXSS)* CubeSats: spectrometer characterization techniques, spectrometer capabilities, and solar science objectives." *Proc. SPIE 9905: Space Telescopes and Instrumentation 2016: Ultraviolet to Gamma Ray*, 990509 [DOI: 10.1117/12.2231945]
1. Mason, J. P., Woods, T. N., Allison, G., Cirbo, M. L., Folley, S., Jones, A., Kohnert, R., Li, X., Moore, C., **Caspi, A.**, & Palo, S. 2015, "*Miniature X-ray Solar Spectrometer (MinXSS)* – A Science-Oriented, University 3U CubeSat." *29<sup>th</sup> AIAA/USU Conf. on Small Satellites*, SSC15-III-6

#### **CONFERENCE and WORKSHOP PRESENTATIONS:**

149. Moore, C. S., Woods, T. N., **Caspi, A.**, *et al.* 2018, "The Miniature X-ray Solar Spectrometer (MinXSS) CubeSats: instrument capabilities and early science analysis on the quiet Sun, active regions, and flares." *AAS Meeting #231* (Washington, D.C.)
148. **Caspi, A.**, Tsang, C., DeForest, C. E., *et al.* 2017, "Chasing the Great American 2017 Total Solar Eclipse: Coronal Results from NASA's WB-57F High-Altitude Research Aircraft." *Next-Generation Suborbital Researchers Conference 2017* (Broomfield, CO)
147. **Caspi, A.**, Tsang, C., DeForest, C. E., *et al.* 2017, "Planetary Science from NASA's WB-57 Canberra High Altitude Research Aircraft During the Great American Eclipse of 2017." *Next-Generation Suborbital Researchers Conference 2017* (Broomfield, CO)
146. **Caspi, A.**, Laurent, G. T., Shoffner, M., *et al.* 2016, "First flight of SMASH, the SwRI Miniature Assembly for Solar Hard X-rays," *Next-Generation Suborbital Researchers Conference 2017* (Broomfield, CO)
145. Case, S., Oqab, H., **Caspi, A.**, *et al.* 2017, "Enterprise In Space: Education for Everyone." *Next-Generation Suborbital Researchers Conference 2017* (Broomfield, CO)
144. DeForest, C. E., Laurent, G. T., Egan, A., & **Caspi, A.**, 2017, "The SwRI Solar Instrument Pointing Platform (SSIPP): First flight and current status." *Next-Generation Suborbital Researchers Conference 2017* (Broomfield, CO)
143. Laurent, G. T., DeForest, C. E., Diller, J. E., *et al.* 2017, "B-SSIPP: First High-Altitude Balloon Flight." *Next-Generation Suborbital Researchers Conference 2017* (Broomfield, CO)
142. **Caspi, A.**, Tsang, C., DeForest, C. E., *et al.* 2017, "Chasing the Great American 2017 Total Solar Eclipse: Coronal Results from NASA's WB-57F High-Altitude Research Aircraft." *AGU Fall Meeting 2017*, Abstract #SH24A-05
141. Tsang, C., **Caspi, A.**, DeForest, C. E., *et al.* 2017, "Planetary Science from NASA's WB-57 Canberra High Altitude Research Aircraft During the Great American Eclipse of 2017."

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140. Christe, S., Shih, A. Y., Krucker, S., *et al.* 2017, “The Focusing Optics X-ray Solar Imager (FOXSI) SMEX Mission.” *AGU Fall Meeting 2017*, Abstract #SH44A-07
139. Shih, A. Y., Christe, S., Krucker, S., *et al.* 2017, “Anticipated Results from the FOXSI SMEX Mission.” *AGU Fall Meeting 2017*, Abstract #SH43C-03
138. **Caspi, A.**, Shih, A. Y., Warren, H., *et al.* 2017, “The CubIXSS (CubeSat Imaging X-ray Solar Spectrometer) Mission Concept.” *3<sup>rd</sup> COSPAR Symp.* (Jeju, Korea), Abstract #ThA2-4
137. Woods, T. N., Mason, J. P., Moore, C. S., *et al.* 2017, “High Priority Solar Science and Lessons Learned from the Miniature X-ray Solar Spectrometer (MinXSS) CubeSat Mission.” *3<sup>rd</sup> COSPAR Symposium* (Jeju, Korea), Abstract #MoA1-4
136. **Caspi, A.**, Shih, A. Y., Warren, H., *et al.* 2017, “The CubeSat Imaging X-ray Solar Spectrometer (CubIXSS) Mission Concept.” *AAS/SPD Meeting #48* (Portland, OR), Abstract #305.03
135. **Caspi, A.**, Tsang, C., DeForest, C., *et al.* 2017, “First results from the NASA WB-57 airborne observations of the Great American 2017 Total Solar Eclipse.” *AAS/SPD Meeting #48* (Portland, OR), Abstract #107.01/#P6.02
134. **Caspi, A.**, DeForest, C. E., Laurent, G. T., *et al.* 2017, “The CubeSat Imaging X-ray Solar Spectrometer (CubIXSS) Mission Concept.” *1<sup>st</sup> International Workshop on Small Satellites for Space Weather Research and Forecasting* (Washington, D.C.)
133. **Caspi, A.**, McTiernan, J. M., & Warren, H. P. 2017, “Progress on *MinXSS/RHESSI* Joint DEMs.” *RHESSI 16<sup>th</sup> Workshop* (Boulder, CO)
132. Woods, T. N., **Caspi, A.**, Chamberlin, P., *et al.* 2017, “MinXSS CubeSat: Results and Status.” *RHESSI 16<sup>th</sup> Workshop* (Boulder, CO)
131. McTiernan, J. M., **Caspi, A.**, & Warren, H. P. 2017, “Non-Thermal Cutoff Energy Obtained Using EVE-RHESSI DEM calculations.” *RHESSI 16<sup>th</sup> Workshop* (Boulder, CO)
130. Moore, C. S., Woods, T. N., **Caspi, A.**, *et al.* 2017, “Exploring solar coronal properties through soft X-ray observations of the MinXSS CubeSat (Miniature X-ray Solar Spectrometer).” *RHESSI 16<sup>th</sup> Workshop* (Boulder, CO)
129. Glesener, L., & All FOXSI Teams 2017, “A new view of the high-energy Sun with focused hard X-rays.” *RHESSI 16<sup>th</sup> Workshop* (Boulder, CO)
128. Stęślicki, M., & FOXSI XFS Team 2017, “X-ray Flux Sensor for the Focusing Optics X-ray Solar Imager – FOXSI.” *RHESSI 16<sup>th</sup> Workshop* (Boulder, CO)
127. **Caspi, A.**, Woods, T. N., & MinXSS Team 2017, “Recent Results from the MinXSS-1 CubeSat (and outlook for MinXSS-2).” Boulder Solar Day (Boulder, CO) [invited]
126. **Caspi, A.**, MinXSS Team, & CubIXSS Team 2017, “State of the Art: MinXSS CubeSat Performance ... and CubIXSS future needs.” *KISS Workshop on Optical Communication on SmallSats: Enabling the Next Era in Space Science – Part 2* (Pasadena, CA) [invited]
125. **Caspi, A.**, McTiernan, J. M., Mason, J. P., *et al.* 2016, “Combining *MinXSS* and *RHESSI* X-ray Spectra for a Comprehensive View of the Temperature Distribution in Solar Flares.” *AGU Fall Meeting 2016*, Abstract #SH13A-2288

124. Woods, T. N., **Caspi, A.**, Chamberlin, P. C., *et al.* 2016, “Improving Solar Soft X-Ray (SXR) Irradiance Results from Broadband Photometers with New SXR Spectral Measurements from a CubeSat.” *AGU Fall Meeting 2016*, Abstract #SH13A-2285
123. Mason, J. P., Woods, T. N., **Caspi, A.**, & Moore, C. S. 2016, “A Comparison of Flares as Observed in SXR and EUV Spectra.” *AGU Fall Meeting 2016*, Abstract #SH13A-2287
122. Moore, C. S., Woods, T. N., **Caspi, A.**, & Mason, J. P. 2016, “Solar quiescent Active Region temperature distribution inferred from the *Miniature Solar X-ray Solar Spectrometer (MinXSS)* CubeSat soft X-ray spectra, *Hinode* X-ray Telescope (XRT) soft X-ray filter images and EUV measurements.” *AGU Fall Meeting 2016*, Abstract #SH11D-03
121. McTiernan, J. M., **Caspi, A.**, & Warren, H. P. 2016, “The EVE plus *RHESSI* DEM for Solar Flares, and Implications for Residual Non-Thermal Soft X-Ray Emission.” *AGU Fall Meeting 2016*, Abstract #SH13A-2289
120. Christe, S., Shih, A. Y., Krucker, S., *et al.* 2016, “The *Focusing Optics X-ray Solar Imager (FOXSI)* SMEX Mission.” *AGU Fall Meeting 2016*, Abstract #SH13A-2281
119. Glesener, L., Christe, S., Shih, A. Y., *et al.* 2016, “Focusing Solar Hard X-rays: Expected Results from a *FOXSI* Spacecraft.” *AGU Fall Meeting 2016*, Abstract #SH13A-2282
118. Shih, A. Y., Saint-Hilaire, P., Duncan, N. A., *et al.* 2016, “First Flight and Future Prospects for the *Gamma-Ray Imager/Polarimeter for Solar flares (GRIPS)*.” *AGU Fall Meeting 2016*, Abstract #SH41D-03
117. Woods, T. N., Jones, A., Mason, J., *et al.* 2016, “New Solar Soft X-Ray (SXR) Spectral Irradiance Measurements Bridge the SDO and *RHESSI* Spectral Gap to Study Flare Energetics.” *LWS SDO-9 Workshop* (Burlington, VT)
116. Kaufmann, P., Abrantes, A., Bortolucci, E. C., *et al.* 2016, “THz solar observations on board of a trans-Antarctic stratospheric balloon flight.” *41st International Conference on Infrared, Millimeter, and Terahertz Waves (IRMMW-THz)*, Abstract #H3A.3
115. Kaufmann, P., Abrantes, A., Bortolucci, E. C., *et al.* 2016, “Solar Flares THz Photometers on a Stratospheric Transantarctic Balloon Flight.” *Solar Physics with Radio Observations (SPRO2016): Continued Operation of Nobeyama Radioheliograph*, Abstract #I-8
114. Kaufmann, P., Abrantes, A., Bortolucci, E. C., *et al.* 2016, “First results of solar observations by THz photometers on board of a trans-Antarctic stratospheric balloon flight.” *Brazilian Physics Society (SBF) Physics Meeting 2016*, Abstract #P232
113. **Caspi, A.**, Shih, A. Y., Warren, H. P., *et al.* 2016, “A slitless X-ray imaging spectrograph concept for solar-pointed CubeSats.” *SPIE Optics + Photonics 2016*, Abstract #9978-10
112. Kaufmann, P., Abrantes, A., Bortolucci, E. C., *et al.* 2016, “THz solar photometers on a stratospheric trans-Antarctic balloon flight.” *Scientific Committee on Antarctic Research (SCAR) Open Science Conference XXXIV*, Abstract #S17.22
111. Mason, J. P., Woods, T. N., Baumgart, M., *et al.* 2016, “*MinXSS* CubeSat On-Orbit Performance and the First Flight of the Blue Canyon Technologies XACT 3-axis ADCS.” *AA/USU 30<sup>th</sup> SmallSat Conference* (Logan, UT), Abstract #S5GuidCont.02
110. **Caspi, A.**, McTiernan, J. M., & Warren, H. P. 2016, “Current progress on multi-instrument

- DEMs using EVE and *RHESSI*.” *RHESSI 15<sup>th</sup> Workshop* (Graz, Austria)
109. **Caspi, A.**, MinXSS Team, & CubIXSS Team 2016, “CubeSats for Solar Soft X-ray Spectroscopy: *MinXSS* and *CubIXSS*.” *RHESSI 15<sup>th</sup> Workshop* (Graz, Austria)
  108. Aschwanden M., O’Flannagain, A., **Caspi, A.**, McTiernan, J. M., Holman, G., Schwartz, R. A., & Kontar, E. 2016, “Global Energetics of Solar Flares – Magnetic, Thermal, and Non-thermal Energies.” *RHESSI 15<sup>th</sup> Workshop* (Graz, Austria)
  107. Hannah, I. G., Grefenstette, B., W., Smith, D. M., *et al.* 2016, “Searching for faint solar HXRs with *NuSTAR*.” *RHESSI 15<sup>th</sup> Workshop* (Graz, Austria)
  106. **Caspi, A.**, Shih, A. Y., Laurent, G. T., *et al.* 2016, “The *CubeSat Imaging X-ray Solar Spectrometer (CubIXSS)* Mission Concept.” *SPIE Astronomical Telescopes + Instrumentation 2016*, Abstract #9905-226
  105. Moore, C. S., Woods, T. N., **Caspi, A.**, & Mason, J. P. 2016, “The *Miniature X-ray Solar Spectrometer (MinXSS)* CubeSats: spectrometer characterization techniques, spectrometer capabilities, and solar science objectives.” *SPIE Astronomical Telescopes + Instrumentation 2016*, Abstract #9905-8
  104. **Caspi, A.**, Woods, T. N., Warren, H., *et al.* 2016, “Science Goals and First Light Analysis from the *Miniature X-ray Solar Spectrometer (MinXSS)* CubeSat,” *AAS/SPD Meeting #47* (Boulder, CO), Abstract #3.06
  103. **Caspi, A.**, Laurent, G. T., Shoffner, M., *et al.* 2016, “First flight of SMASH, the SwRI Miniature Assembly for Solar Hard X-rays,” *AAS/SPD Meeting #47* (Boulder, CO), Abstract #206.01
  102. Woods, T. N., **Caspi, A.**, Chamberlin, P. C., *et al.* 2016, “Mission Overview of the *Miniature X-ray Solar Spectrometer (MinXSS)* CubeSat,” *AAS/SPD Meeting #47* (Boulder, CO), Abstract #8.16
  101. Moore, C., **Caspi, A.**, Woods, T. N., & Mason, J. 2016, “The *Miniature X-ray Solar Spectrometer (MinXSS)* CubeSat: instrument characterization techniques, instrument capabilities and solar science objectives,” *AAS/SPD Meeting #47* (Boulder, CO), Abstract #301.02
  100. Christe, S., Shih, A. Y., Dennis, B. R., *et al.* 2016, “The *Focusing Optics X-ray Solar Imager* Small Explorer Concept Mission,” *AAS/SPD Meeting #47* (Boulder, CO), Abstract #8.02
  99. Shih, A. Y., Christe, S., Alaoui, M., *et al.* 2016, “Science Objectives of the *FOXSI* Small Explorer Mission Concept,” *AAS/SPD Meeting #47* (Boulder, CO), Abstract #8.14
  98. Saint-Hilaire, P., Shih, A. Y., Duncan, N., *et al.* 2016, “First flight of the *Gamma-Ray Imager/Polarimeter for Solar flares (GRIPS)*,” *AAS/SPD Meeting #47* (Boulder, CO), Abstract #403.01
  97. Kaufmann, P., Abrantes, A., Bortolucci, E., *et al.* 2016, “Solar Observations at THz Frequencies on Board of a Trans-Antarctic Stratospheric Balloon Flight,” *AAS/SPD Meeting #47* (Boulder, CO), Abstract #6.11
  96. McTiernan, J., **Caspi, A.**, & Warren, H. 2016, “The EVE plus *RHESSI* DEM for Solar Flares, and Implications for Residual Non-Thermal X-Ray Emission,” *AAS/SPD Meeting #47*

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95. **Caspi, A.**, Shih, A. Y., Warren, H. P., DeForest, C. E., & Woods, T. N. 2015, “New Instruments for Spectrally-Resolved Solar Soft X-ray Observations from CubeSats, and Larger Missions.” *AGU Fall Meeting 2015*, Abstract #SH13B-2444
94. Inglis, A., Christe, S., Glesener, L., *et al.* 2015, “Capabilities of a *FOXSI* Small Explorer.” *AGU Fall Meeting 2015*, Abstract #SH43B-2456
93. Wieman, S., Didkovsky, L., Woods, T. N., Jones, A. R., **Caspi, A.**, & Warren, H. P. 2015, “Active Region Soft X-Ray Spectra as Observed Using Sounding Rocket Measurements from the Solar Aspect Monitor (SAM), - a Modified *SDO/EVE* Instrument.” *AGU Fall Meeting 2015*, Abstract #SH23B-2446
92. Hannah, I. G., Grefenstette, B. W., Smith, D. M., *et al.* 2015, “*NuSTAR* X-ray observations of small flares and non-flaring active regions.” *AGU Fall Meeting 2015*, Abstract #SH31D-03 [invited]
91. Marsh, A., Smith, D. M., Glesener, L., *et al.* 2015, “The *NuSTAR* Sensitivity to Quiet-Sun Transient Events.” *AGU Fall Meeting 2015*, Abstract #SH13B-2441
90. **Caspi, A.**, Shih, A. Y., & Warren, H. P. 2015, “New Instruments for Spectrally-Resolved Solar Soft X-ray Observations from CubeSats (and Larger Missions).” *Hinode 9<sup>th</sup> Workshop* (Belfast, N. Ireland) [invited]
89. Hannah, I., Smith, D., Marsh, A., *et al.* 2015, “Active region heating by small flares observed with *NuSTAR*, *Hinode/XRT* and *RHESSI*.” *Hinode 9<sup>th</sup> Workshop* (Belfast, N. Ireland)
88. Hannah, I. G., Smith, D. M., Marsh, A., *et al.* 2015, “Active region heating by small flares observed with *NuSTAR*, *Hinode/XRT* and *RHESSI*.” *RHESSI 14<sup>th</sup> Workshop* (Newark, NJ)
87. Mason, J. P., Woods, T. N., Allison, G., *et al.* 2015, “*Miniature X-ray Solar Spectrometer (MinXSS)* – A Science-Oriented, University 3U CubeSat.” *AIAA/USU 29<sup>th</sup> SmallSat Conference* (Logan, UT), Abstract #S3NextOnPad.06
86. Hannah, I. G., Smith, D. M., Marsh, A., *et al.* 2015, “*NuSTAR*'s First Solar Observations.” *RAS National Astronomy Meeting / UKSP / MIST 2015* (Llandudno, Wales)
85. Hannah, I. G., Smith, D. M., Marsh, A., *et al.* 2015, “X-ray imaging spectroscopy of non-flaring active regions with *NuSTAR*.” *Coronal Loop Workshop VII* (Cambridge, UK), Abstract #P1.9
84. **Caspi, A.**, Warren, H., McTiernan, J., & Woods, T. N. 2015, “Spectrally-resolved Soft X-ray Observations and the Temperature Structure of the Solar Corona.” *AAS/AGU TESS #1*, Abstract #204.03
83. McTiernan, J. M., **Caspi, A.**, & Warren, H. 2015, “The Multi-Instrument (*EVE-RHESSI*) DEM for Solar Flares, and Implications for Residual Non-Thermal Soft X-Ray Emission.” *AAS/AGU TESS #1*, Abstract #302.10
82. Ryan, D., Aschwanden, M., Boerner, P., **Caspi, A.**, McTiernan, J., & Warren, H. 2015, “Multi-thermal Energies of Solar Flares.” *AAS/AGU TESS #1*, Abstract #302.15
81. Aschwanden, M., Boerner, P., Xu, Y., Ju, J., Ryan, D., **Caspi, A.**, McTiernan, J., & Warren, H. 2015, “Magnetic and Hydrodynamic Energy Scaling Laws in Solar Flares.” *AAS/AGU*

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80. Hannah, I. G., Marsh, A., Glesener, L., *et al.* 2015, “Hard X-ray imaging spectroscopy of hot coronal sources and active regions with *NuSTAR*.” *AAS/AGU TESS #1*, Abstract #204.02
79. Marsh, A., Hannah, I. G., Glesener, L., *et al.* 2015, “High-sensitivity search for transient solar X-ray emission with *NuSTAR*.” *AAS/AGU TESS #1*, Abstract #213.02
78. **Caspi, A.**, Shih, A. Y., Warren, H. P., Woods, T. N., & Jones, A. R. 2015, “Enabling Technologies for Solar X-ray Observations from CubeSats.” *Measurement Techniques in Solar and Space Physics*
77. Hannah, I. G., Smith, D. M., Marsh, A., *et al.* 2015, “*NuSTAR*'s First Solar Observations.” *2015 NuSTAR Science Team Meeting* (Bologna, Italy)
76. **Caspi, A.**, Woods, T. N., Warren, H. P., & McTiernan, J. M., 2015 “Measuring Solar Soft X-ray Emission and the Coronal Temperature Distribution.” *Boulder Solar Day* (Boulder, CO) [invited]
75. **Caspi, A.**, McTiernan, J., Warren, H., & Woods, T. 2014, “New Solar Soft X-ray Observations from the X123 Spectrometer.” *AGU Fall Meeting 2014*, Abstract #SH53B-4220
74. Hannah, I. G., Marsh, A., Glesener, L., *et al.* 2014, “*NuSTAR*'s first solar observations: Search for a high energy X-ray component to the ‘non-flaring’ Sun.” *AGU Fall Meeting 2014*, Abstract #SH12A-04
73. Marsh, A., Hannah, I. G., Glesener, L., *et al.* 2014, “*NuSTAR*'s First Solar Observations: Search for Transient Brightenings / Nanoflares.” *AGU Fall Meeting 2014*, Abstract #SH13C-4129
72. **Caspi, A.**, McTiernan, J., Warren, H., & Woods, T. 2014, “Multi-Instrument Differential Emission Measure (DEM) of the Solar Corona.” *LWS SDO-8 Workshop* (Portland, OR)
71. Woods, T. N., **Caspi, A.**, Chamberlin, P. C., Jones, A. R., Kohnert, R., Li, X., Mason, J. P., Palo, S. E., & Solomon, S. 2014, “The *Miniature X-ray Solar Spectrometer (MinXSS)* CubeSat.” *LWS SDO-8 Workshop* (Portland, OR)
70. Mason, J. P., Woods, T., **Caspi, A.**, Webb, D., Vourlidas, A., & Thompson, B. 2014, “Parameterizing Coronal Dimmings Associated with Coronal Mass Ejections.” *LWS SDO-8 Workshop* (Portland, OR)
69. Brewer, J., Longcope, D., Qiu, J., & **Caspi, A.** 2014, “Modeling a Super-Hot, Above-the-Loop-Top Thermal HXR Source as the Slow-Shock-Heated Reconnection Outflow.” *LWS SDO-8 Workshop* (Portland, OR)
68. Doschek, G. A., Warren, H. P., Dennis, B. R., Reep, J. W., & **Caspi, A.** 2014, “Testing the Standard Flare Model with *Hinode*/EIS, *RHESSI*, and *SDO*/AIA Data.” *LWS SDO-8 Workshop* (Portland, OR)
67. Lin, C. Y., Bailey, S., Jones, A., Woodraska, D., Woods, T. N., Eparvier, F. G., & **Caspi, A.** 2014, “Soft X-ray Irradiance Measured by the Solar Aspect Monitor on the Extreme Ultraviolet Variability Experiment.” *LWS SDO-8 Workshop* (Portland, OR)
66. Hannah, I. G., Marsh, A., Glesener, L., *et al.* 2014, “*NuSTAR*'s First Solar Observations: Search for a high energy X-ray component to the ‘non-flaring’ Sun.” *LWS SDO-8 Workshop*



(Portland, OR)

65. Marsh, A., Hannah, I. G., Glesener, L., *et al.* 2014, “*NuSTAR*’s First Solar Observations: Search for Transient Brightenings / Nanoflares.” *LWS SDO-8 Workshop* (Portland, OR)
64. **Caspi, A.**, & Woods, T. N. 2014, “X123 Results from the *SDO/EVE* Sounding Rockets.” *LWS SDO-8 Workshop* (Portland, OR), *SDO/EVE Working Group meeting*
63. Hannah, I. G., Marsh, A., Glesener, L., *et al.* 2014, “*NuSTAR*’s solar observing campaign: Towards detecting the faintest HXR emission from flare accelerated electrons.” *14<sup>th</sup> European Solar Physics Meeting* (Dublin, Ireland), Poster #1.07
62. Hannah, I. G., Marsh, A., Glesener, L., *et al.* 2014, “*NuSTAR*’s solar observing campaign: Towards detecting the faintest HXR emission from flare accelerated electrons.” *Royal Society “New approaches in coronal heating” Meeting* (Buckinghamshire, UK), Poster #8
61. **Caspi, A.**, McTiernan, J., Warren, H., & Woods, T. N. 2014, “The Multi-Instrument, Comprehensive Differential Emission Measure (DEM) of the Solar Corona During Flares and Quiescent Periods.” *Bulletin of the Amer. Astron. Soc.*, **46(4)**, Abstract #123.07
60. Glesener, L., **Caspi, A.**, Christe, S., *et al.* 2014, “Current and future solar observation using focusing hard X-ray imagers.” *Bulletin of the Amer. Astron. Soc.*, **46(4)**, Abstract #123.64
59. Marsh, A., Smith, D. M., Glesener, L., & **Caspi, A.** 2014, “Pre-Impulsive Flares and Chromospheric Heating/Evaporation Mechanisms with *RHESSI* and AIA.” *Bulletin of the Amer. Astron. Soc.*, **46(4)**, Abstract #123.02
58. Liu, W., Qiu, J., Longcope, D., & **Caspi, A.** 2014, “Heating Rate in Reconnection Formed Flare Loops.” *Bulletin of the Amer. Astron. Soc.*, **46(4)**, Abstract #123.13
57. **Caspi, A.**, Mason, J. P., Shih, A. Y., & Christe, S. D. 2014, “CubeSats: Overview and Enabling Technologies for Solar Observations.” *RHESSI 13<sup>th</sup> Workshop* (Windisch, Switzerland) [*invited*]
56. **Caspi, A.**, Woods, T. N., Mason, J. P., & Shih, A. Y. 2014, “New CubeSats for Solar X-ray Observations: *MinXSS* & *CubIXSS*.” *RHESSI 13<sup>th</sup> Workshop* (Windisch, Switzerland)
55. **Caspi, A.**, & McTiernan, J. M. 2014, “The Multi-Instrument (EVE-*RHESSI*) DEM for Solar Flares, and Implications for Non-Thermal Emission.” *RHESSI 13<sup>th</sup> Workshop* (Windisch, Switzerland)
54. **Caspi, A.** 2014, “Coronal Plasma Heating in the Flaring and Quiescent Sun.” *Huntsville 2014 Workshop* (Orlando, FL) [*invited*]
53. **Caspi, A.**, Woods, T. N., Mason, J. P., Jones, A. R., & Warren, H. P. 2013, “New Observations of Soft X-ray (0.5–5 keV) Solar Spectra.” *AGU Fall Meeting 2013*, Abstract #SH33A-2036
52. McTiernan, J. M., **Caspi, A.**, & Warren, H. P. 2013, “The Multi-Instrument (EVE-*RHESSI*) DEM for Solar Flares, and Implications for Non-thermal Emission.” *AGU Fall Meeting 2013*, Abstract #SH13A-2004
51. Woods, T. N., **Caspi, A.**, Chamberlin, P. C., Eparvier, F. G., Jones, A. R., Sojka, J. J., Solomon, S. C., & Viereck, R. A. 2013, “Solar Extreme Ultraviolet and X-ray Irradiance Measurements for Thermosphere and Ionosphere Studies.” *AGU Fall Meeting 2013*, Abstract

#SA41D-07 [*invited*]

50. Mason, J. P., Woods, T. N., **Caspi, A.**, & Hock, R. A. 2013, "Understanding Coronal Dimming and its Relation to Coronal Mass Ejections." *AGU Fall Meeting 2013*, Abstract #SH53A-2149
49. Warren, H. P., **Caspi, A.**, & McTiernan, J. M. 2013, "Spectral Modeling: Differential Emission Measures with EVE, *GOES*, and *RHESSI*." *SDO/EVE Science Working Group Meeting* (Boulder, CO)
48. Mason, J. P., Woods, T. N., **Caspi, A.**, Jones, A. R., Hock, R. A., Thompson, B., Reinard, A., & Webb, D. 2013, "Coronal Dimming and Coronal Mass Ejections." *SDO/EVE Science Working Group Meeting* (Boulder, CO)
47. Mason, J. P., Woods, T. N., & **Caspi, A.** 2013, "Understanding Solar Eruptive Events: Analysis of Coronal Dimming and Development of a Solar-Observing CubeSat." NASA/GSFC Heliophysics Group Seminar (Greenbelt, MD) [*invited*]
46. McTiernan, J. M., **Caspi, A.**, & Warren, H. P. 2013, "EVE-*RHESSI* Observations of Thermal and Nonthermal Flare Emission." *Bulletin of the Amer. Astron. Soc.*, **45(8)**, Abstract #100.55
45. Liu, W., Qiu, J., Longcope, D., **Caspi, A.**, Courtney, C., & O'Hara, J 2013, "Determining Heating Rates in Reconnection Formed Flare Loops." *Bulletin of the Amer. Astron. Soc.*, **45(8)**, Abstract #200.03
44. Palo, S., Woods, T., Li, X., Mason, J., Carton, M., **Caspi, A.**, Jones, A., Kohnert, R., & Solomon, S. 2013, "*MinXSS*: A Three Axis Stabilized Cubesat for Conducting Solar Physics." *5<sup>th</sup> European CubeSat Symposium* (Brussels, Belgium)
43. **Caspi, A.**, Woods, T. N., & Stone, J. 2013, "A New Observation of the Quiet Sun Soft X-ray (0.5–5 keV) Spectrum." *Boulder Solar Day* (Boulder, CO)
42. **Caspi, A.**, McTiernan, J. M., & Warren, H. P. 2013, "Exploring Thermal and Non-Thermal Flare Emission with EVE and *RHESSI*: Current Progress." *Boulder Solar Day* (Boulder, CO)
41. **Caspi, A.**, Woods, T. N., & Stone, J. 2013, "A New Observation of the Quiet Sun Soft X-ray (0.5–5 keV) Spectrum." *LWS SDO-7 Workshop* (Cambridge, MD)
40. **Caspi, A.**, McTiernan, J. M., & Warren, H. P. 2013, "Exploring Thermal and Non-Thermal Flare Emission with EVE and *RHESSI*: Current Progress." *LWS SDO-7 Workshop* (Cambridge, MD)
39. Mason, J. P., Hock, R. A., Woods, T. N., Thompson, B. J., Webb, D. F., & **Caspi, A.** 2013, "Understanding Solar Eruptive Events." *LWS SDO-7 Workshop* (Cambridge, MD)
38. Doschek, G. A., Warren, H. P., Young, P. R., & **Caspi, A.** 2013, "Flare Footpoint Regions Observed by the Extreme-ultraviolet Imaging Spectrometer (EIS) on *Hinode*." *LWS SDO-7 Workshop* (Cambridge, MD)
37. **Caspi, A.**, Woods, T. N., & Stone, J. 2012, "A New Observation of the Quiet Sun Soft X-ray (0.5–5 keV) Spectrum." *EOS Trans. AGU*, **93(52)**, Fall Meet. Suppl., Abstract #SH33A-2219
36. McTiernan, J. M., Warren, H. P., & **Caspi, A.** 2012, "Exploring Thermal and Non-Thermal Flare Emission with EVE and *RHESSI*." *EOS Trans. AGU*, **93(52)**, Fall Meet. Suppl., Abstract #SH52B-02

35. Mason, J. P., Woods, T. N., & **Caspi, A.** 2012, “Correlations Between EUV Coronal Spectral Line Dimming and CME Kinetics.” *EOS Trans. AGU*, **93(52)**, Fall Meet. Suppl., Abstract #SH41A-2100
34. Woods, T. N., Woodraska, D., Jones, A. R., Eparvier, F. G., & **Caspi, A.** 2012, “Space Weather Products from the Extreme Ultraviolet Variability Experiment (EVE).” *EOS Trans. AGU*, **93(52)**, Fall Meet. Suppl., Abstract #SH41A-2099
33. **Caspi, A.**, McTiernan, J. M., & Warren, H. P. 2012, “Exploring Thermal and Non-Thermal Flare Emission with EVE and *RHESSI*: Second Steps.” *RHESSI/SDO Solar in Sonoma: Tracing the Connections in Solar Eruptive Events* workshop (Petaluma, CA)
32. Mason, J. P., Woods, T. N., & **Caspi, A.** 2012, “Correlations Between EUV Coronal Spectral Line Dimming and CME Kinetics.” *RHESSI/SDO Solar in Sonoma: Tracing the Connections in Solar Eruptive Events* workshop (Petaluma, CA)
31. **Caspi, A.**, McTiernan, J. M., & Warren, H. P. 2012, “Combining EVE and *RHESSI* Observations to Better Understand Flare Energetics: Second Steps.” *SDO/EVE Science and Data Analysis Workshop* (Yosemite, CA)
30. **Caspi, A.**, Woods, T. N., Jones, A., Klapetzky, M., Carton, M., & Stone, J. 2012, “X123 – A new rocket instrument for soft X-ray spectroscopy.” *SDO/EVE Science and Data Analysis Workshop* (Yosemite, CA)
29. **Caspi, A.**, & Klapetzky, M. 2012, “Rocket SAM modifications for soft X-ray spectroscopy: Concept and First Results.” *SDO/EVE Science and Data Analysis Workshop* (Yosemite, CA)
28. Mason, J. P., Woods, T. N., & **Caspi, A.** 2012, “Correlations Between EUV Coronal Spectral Line Dimming and CME Kinetics.” *SDO/EVE Science and Data Analysis Workshop* (Yosemite, CA)
27. **Caspi, A.**, McTiernan, J. M., & Warren, H. P. 2012, “A Comprehensive View of the Temperature Distribution in Solar Flares from EVE and *RHESSI*.” *Bulletin of the Amer. Astron. Soc.*, **44(4)**, Abstract #204.11
26. Liu, W., Qiu, J., Longcope, D., & **Caspi, A.** 2012, “Determine the Heating Rate in Reconnection Formed Flare Loops of the M8.0 flare on 2005 May 13.” *Bulletin of the Amer. Astron. Soc.*, **44(4)**, Abstract #516.01D
25. Bryans, P., A’Hearn, M., Battams, K., *et al.* 2012, “The Journey of Sungrazing Comet Lovejoy.” *Bulletin of the Amer. Astron. Soc.*, **44(4)**, Abstract #525.07
24. Saint-Hilaire, P., Chodas, P. W., Battams, K., *et al.* 2012, “Some Like it Hot: the Trajectory of Sungrazing Comet C/2011 W3 (Lovejoy) in the Solar Neighborhood.” *Bulletin of the Amer. Astron. Soc.*, **44(4)**, Abstract #521.07
23. **Caspi, A.**, Krucker, S., & Lin, R. P. 2011, “Statistical Properties of Super-Hot Flares.” *EOS Trans. AGU*, **92(52)**, Fall Meet. Suppl., Abstract #SH13B-1942
22. **Caspi, A.**, & Lin, R. P. 2011, “Non-thermal and Super-hot Coronal Sources in the 2002 July 23 X4.8 Flare.” *Bulletin of the Amer. Astron. Soc.*, **43(5)**, Abstract #22.09
21. Raulin, J.-P., Trottet, G., Giménez de Castro, C. G., Luthi, T., **Caspi, A.**, Mandrini, C. H., Luoni, M. L., & Kaufmann, P. 2011, “The Time-Extended Phase of Solar Flares at MM-

- SUBMM Wavelengths.” *Bulletin of the Amer. Astron. Soc.*, **43(5)**, Abstract #12.06
20. Lin, R. P., Krucker, S., **Caspi, A.**, *et al.* 2011, “Solar Eruptive Events (SEE) Mission for the Next Solar Maximum.” *Bulletin of the Amer. Astron. Soc.*, **43(5)**, Abstract #22.04
  19. **Caspi, A.**, Krucker, S., Hurford, G., & McTiernan, J. 2010, “Thermal imaging of multi-temperature flare plasma with *RHESSI* visibilities.” *EOS Trans. AGU*, **91(52)**, Fall Meet. Suppl., Abstract #SH53B-08
  18. **Caspi, A.** 2010, “Thermal imaging with visibilities.” *RHESSI 10<sup>th</sup> General Workshop: Reconnect in Annapolis* (Annapolis, MD)
  17. **Caspi, A.**, & Lin, R. P. 2010, “*RHESSI* Observations of Super-Hot ( $T > 30$  MK) Plasma in Large Solar Flares.” *Bulletin of the Amer. Astron. Soc.*, **42(3)**, 910, Abstract #320.01
  16. McTiernan, J. M., & **Caspi, A.** 2010, “The Probability for Two Distinct High-Temperature Components in the 23-July-2002 Solar Flare.” *Bulletin of the Amer. Astron. Soc.*, **42(3)**, 900, Abstract #404.08
  15. **Caspi, A.**, Krucker, S., & Lin, R. P. 2008, “Can chromospheric evaporation explain superhot flare plasmas?” *EOS Trans. AGU*, **89(23)**, Jt. Assem. Suppl., Abstract #SP44A-03
  14. **Caspi, A.**, Krucker, S., & Lin, R. P. 2007, “Statistics of hot plasmas in M/X flares using *RHESSI* Fe & Fe/Ni line and continuum observations.” *EOS Trans. AGU*, **88(52)**, Fall Meet. Suppl., Abstract #SH41A-0309
  13. **Caspi, A.**, Krucker, S., & Lin, R. P. 2007, “Statistical properties of hot thermal plasmas in M/X flares using *RHESSI* Fe & Fe/Ni line and continuum observations.” *Bulletin of the Amer. Astron. Soc.*, **39(1)**, 214, Abstract #93.18
  12. **Caspi, A.**, Krucker, S., & Lin, R. P. 2006, “Pre-Impulsive Hard X-Ray Emission from Coronal Sources in X-Class Flares” (*updated*). *EOS Trans. AGU*, **87(52)**, Fall Meet. Suppl., Abstract #SH43B-1528
  11. **Caspi, A.**, Krucker, S., & Lin, R. P. 2006, “Measuring the Temperature of Hot Flare Plasma Using *RHESSI* Fe and Fe/Ni Line Observations.” *Bulletin of the Amer. Astron. Soc.*, **38(2)**, 253, Abstract #27.04
  10. **Caspi, A.**, Krucker, S., & Lin, R. P. 2005, “Pre-Impulsive Hard X-Ray Emission from Coronal Sources in X-Class Flares.” *EOS Trans. AGU*, **86(52)**, Fall Meet. Suppl., Abstract #SH13A-0285
  9. **Caspi, A.**, & Lin, R. P. 2005, “Distinguishing Between Thermal and Non-Thermal Electron Populations in Solar Flares Using *RHESSI*.” *EOS Trans. AGU*, **86(18)**, Jt. Assem. Suppl., Abstract #SP41C-05
  8. Hudson, H., **Caspi, A.**, Dennis, B. R., & Phillips, K. J. H. 2005, “*RHESSI* soft X-ray imaging spectroscopy of a flare.” *EOS Trans. AGU*, **86(18)**, Jt. Assem. Suppl., Abstract #SH31A-03
  7. **Caspi, A.**, Krucker, S., & Lin, R. P. 2004, “Characterizing Thermal and Non-Thermal Electron Populations in Solar Flares Using *RHESSI*” (*updated*). *COSPAR Plenary Meeting*, **35**, 3582, Abstract #E2.3-0013-04
  6. **Caspi, A.**, Krucker, S., & Lin, R. P. 2004, “Characterizing Thermal and Non-Thermal Electron Populations in Solar Flares Using *RHESSI*.” *RHESSI 4<sup>th</sup> Gen. Workshop* (Paris, France)

5. **Caspi, A.**, Krucker, S., & Lin, R. P. 2004, “Characterizing Thermal and Non-Thermal Electron Populations in Solar Flares Using *RHESSI*.” *Bulletin of the Amer. Astron. Soc.*, **36(2)**, 819, Abstract #87.04
4. **Caspi, A.**, Krucker, S., & Lin, R. P. 2003, “*RHESSI* Observations of High-Temperature Plasmas in Solar Flares.” *EOS Trans. AGU*, **84(46)**, Fall Meet. Suppl., Abstract #SH22A-0170
3. Balciunaite, P., Krucker, S., **Caspi, A.**, & Lin, R. P. 2003, “Non-thermal coronal hard X-ray emission observed during a partially occulted flare.” *EOS Trans. AGU*, **84(46)**, Fall Meet. Suppl., Abstract #SH22A-0172
2. **Caspi, A.**, Krucker, S., & Lin, R. P. 2003, “Energy estimates for solar flares using *RHESSI* and *GOES* SXI.” *Bulletin of the Amer. Astron. Soc.*, **35(3)**, 850, Abstract #22.04
1. **Caspi, A.**, Krucker, S., & Lin, R. P. 2002, “Correlation of *RHESSI* and *TRACE* Observations of the Rise Phase of the 21 April 2002 X1.5 Flare.” *EOS Trans. AGU*, **83(47)**, Fall Meet. Suppl., Abstract #SH52A-0465

### **SERVICE:**

2017–present Chief Scientist, Enterprise in Space

- 2017 Chair, Local Organizing Committee – *RHESSI* 16<sup>th</sup> Workshop (Boulder, CO)  
 Organizing Committee member – Next-generation Suborbital Researchers Conference 2017 (Broomfield, CO)  
 Session chair – AAS/SPD #48 (Portland, OR), sess. 300, 402  
 Session convener/chair – AGU Fall Meeting, sess. SH24A (oral), SH13B (poster), A41I (poster)  
 Referee – *Nature Astronomy*, *Astrophysical Journal*, *Journal of Geophysical Research: Space Physics*
- 2016 Science Organizing Committee member, working group leader – *RHESSI* 15<sup>th</sup> Workshop (Graz, Austria)  
 Session convener/chair – AGU Fall Meeting, sess. SH11D (oral), SH13A (poster)  
 AAS Congressional Visits Day participant  
 Referee – *Solar Physics*, *Journal of Geophysical Research: Space Physics*, *Astrophysical Journal*  
 External reviewer – NASA Heliophysics
- 2015 Session chair – AAS/AGU TESS #1, session 406 (oral)  
 Referee – *Astrophysical Journal*  
 External reviewer – NASA Heliophysics
- 2014 Science Organizing Committee member, session leader – *RHESSI* 13<sup>th</sup> Workshop (Windisch, Switzerland)  
 Referee – *Astrophysical Journal*  
 Review panel member – NASA Heliophysics  
 External reviewer – NASA Heliophysics
- 2013 Science Organizing Committee member, working group leader – *SDO/EVE* Science Working Group Meeting (Boulder, CO)

- Organizing Committee member – Coronal Dimming Working Group Meeting (Boulder, CO)  
 Referee – *Solar Physics, Astrophysical Journal*  
 External reviewer – NASA Heliophysics
- 2012 Science Organizing Committee member, working group leader – *RHESSI/SDO* “Tracing the Connections in Solar Eruptive Events” workshop (Petaluma, CA)  
 Science Organizing Committee member – *SDO/EVE* Workshop (Yosemite, CA)  
 Local Organizing Committee member – Comet Lovejoy Workshop (Boulder, CO)  
 Referee – *Astrophysical Journal*  
 External reviewer – NASA Heliophysics
- 2011–2014 Steering Committee member – LASP Interactive Solar Irradiance Datacenter
- 2011 Review panel member – NSF / SHINE
- 2010–2011 Lead copy editor, assistant science editor – Emslie, A. G., Dennis, B. R., Lin, R. P., Hudson, H. S. (eds.) 2011, “High-Energy Aspects of Solar Flares,” a special edition of *Space Science Reviews* (vol. 159, issues 1–4). Uncredited – see Preface (pp. 1–2).
- 2010 Session chair – AGU Fall Meeting, session SH53B (oral)
- 2008 Local Organizing Committee student member – *RHESSI/STEREO/Hinode* “Solar Activity During the Onset of Solar Cycle 24” Workshop (Napa, CA)
- 2006 Group leader – AAS/SPD Heliophysics Summer School (Durham, NH)
- 2005 Proofreading and copy-editing assistance – Aschwanden, M. 2006, “Physics of the Solar Corona.” 2<sup>nd</sup> ed.

**PUBLIC TALKS:**

- 2017 “NASA Antarctica: Exploration and Science at the Ends of the Earth” – Denver Comic Con (*Jul. 2017*)

**MAJOR MEDIA APPEARANCES:**

- 2017 PBS, NOVA S44E11, “Eclipse Over America”  
 Science Channel, “Great American Eclipse”