Brief Article

The Author

August 19, 2014

1 Publications and Presentations

Peer Reviewed Journal Articles

1. Macintosh, B., Graham, J. R., Ingraham, P., Konopacky, Q., Marois, C., Perrin, M., Poyneer, L., Bauman, B., Barman, T., Burrows, A. S., Cardwell, A., Chilcote, J., De Rosa, R. J., Dillon, D., Doyon, R., Dunn, J., Erikson, D., Fitzgerald, M. P., Gavel, D., Goodsell, S., Hartung, M., Hibon, P., Kalas, P., Larkin, J., Maire, J., Marchis, F., Marley, M. S., McBride, J., Millar-Blanchaer, M., Morzinski, K., Norton, A., Oppenheimer, B. R., Palmer, D., Patience, J., Pueyo, L., Rantakyro, F., Sadakuni, N., Saddlemyer, L., Savransky, D., Serio, A., Soummer, R., Sivaramakrishnan, A., Song, I., Thomas, S., Wallace, J. K., Wiktorowicz, S., and Wolff, S., *First light of the Gemini Planet Imager*, Proceedings of the National Academy of Sciences, 2014.

2. Savransky, D., Thomas, S. J., Poyneer, L. A. and Macintosh, B. A., *Computer vision applications for coronagraphic optical alignment and image processing*, Applied Optics, 52, 14, 2013.

3. Belbruno, E., Moro-MartŠn, A., Malhotra, R., and Savransky, D., *Chaotic exchange of solid material between planetary systems: implications for lithopanspermia*, Astrobiology, 12, 8, 2012.

4. Savransky, D., Cady, E. and Kasdin, N. J., *Parameter distributions of Keplerian orbits*, ApJ, 728, 66, 2011.

5. Savransky, D. and Kasdin, N. J., *Simulation and analysis of sub-μas precision astrometric data for planet-finding*, ApJ, 721, 1559, 2010.

6. McConnochie, T. H., Bell III, J. F., Savransky, D., Wolff, M. J., Toigo, A. D., Wang, H., Richardson, M. I., and Christensen, P. R., *THEMIS-VIS Observations of Clouds in the Martian Mesosphere: Altitudes, Wind Speeds, and Decameter-Scale Morphology*, Icarus, 210, 2, 2010.

7. Savransky D., Kasdin, N. J., and Cady, E. *Analyzing the Designs of Planet-Finding Missions*, PASP, 122:401-419, 2010.

8. Bell III, J.F., Savransky, D., and Wolff, M.J. *Chromaticity of the Martian Sky as Observed by the Mars Exploration Rover Pancam*, J. Geophys. Res.,111, E12S05, 2006.

9. McConnochie, T.H., J.F. Bell III, D. Savransky, et al., *Calibration and In-Flight Performance of the Mars Odyssey THEMIS Visible Imaging Subsystem (VIS) Instrument*, J. Geophys. Res., 111, E06018, 2006.

10. Bell III, J.F., J.R. Joseph, J. Sohl-Dickstein, H. Arneson, M. Johnson, M. Lemmon, and D. Savransky, *In-Flight Calibration of the Mars Exploration Rover Panoramic Camera Instrument*, J. Geophys. Res., 111, E02S03, 2006.

Invited Talks

1. 08/27/2013 - *Space mission design for exoplanet imaging*, SPIE Optics + Photonics 2013, San Diego, CA

2. 4/16/2013 - *Imaging Exoplanets: Instrumentation, Survey Design, and the Future of Exoplanet Exploration*, Cornell University, Ithaca, NY

3. 12/13/2012 - *Faint Signal Detection in Exoplanet Imaging*, UC Davis, Davis, CA

4. 02/28/2012 - *Detection Probabilities in the Presence of Speckle Nosie*, UC Berkeley, Berkeley, CA

5. 04/26/2011 - *Probabilities in Planet Finding: Statistical Modeling for Exoplanet Studies*, Goddard Space Flight Center, Greenbelt, MA

6. 12/08/2010 - *Mission Planning and Optimization*, Jet Propulsion Laboratory, Pasadena, CA

7. 11/30/2010 - *Data Stream Integration for Modeling Exosystems*, American Museum of Natural History, New York, NY

8. 06/21/2010 - *Stellar Reflex Astrometry Applications for Planet-Finding*, Space Telescope Science Institute, Baltimore, MA

Selected Conference Presentations and Papers

1. Savransky, D., Thomas, S. J., Poyneer, L. A. and Macintosh, B. A., Sadakuni, N., Dillon, D., Goodsell, S. J., Hartung, M, Hibon, P., Rantakyrö, F., Cardwell, A., Serio, A., *Automated alignment and on-sky performance of the Gemini planet imager coronagraph*, Proc. SPIE 9147, 914740-914740-11, 2014

2. Perrin, M. D., Maire, J., Ingraham, P., Savransky, D., Millar-Blanchaer, M., Wolff, S. G., Ruffio, J., Wang, J. J., Draper, Z. H., Sadakuni, N., *Gemini planet imager observational calibrations I: Overview of the GPI data reduction pipeline*, Proc SPIE 9147, 91473J-91473J-13, 2014

3. Savransky, D., *Space mission design for exoplanet imaging*, Proc. SPIE 8864, 886403, 2013.

4. Savransky, D., Macintosh, B. A., Graham, J., and Konopacky Q. M. *Campaign Scheduling and Analysis for the Gemini Planet Imager*, Proceedings of the International Astronomical Union, 8, pp 68-69. doi:10.1017/S1743921313007916, 2013.

5. Savransky, D., Macintosh, B. A., Konopacky, Q. M., Barman, T. S., and Marois, C., *Wavelength-Diversity Derived Low Resolution Spectra of HR8799b*, AAS Meeting #221, 2013.

6. Savransky, D. , Macintosh, B. A., Thomas, S., J., Poyneer, L. A., Palmer, D. W., De Rosa, R. J., and Hartung, M., *Focal plane wavefront sensing and control for ground-based imaging*, Proc. SPIE 8447, 84476S, 2012.

7. Kasdin, N. J., Lisman, D., Shaklan, S., Thomson, M., Cady, E., Martin, S., Marchen, L., Vanderbei, R. J., Macintosh, B., Rudd, R. E., Savransky, D., Miikula, J., and Lynch, D., *Technology demonstration of starshade manufacturing for NASA's Exoplanet mission program*, Proc. SPIE 8442, 84420A, 2012.

8. Ammons, S. M., Bendek, E. A., Guyon, O., Macintosh, B. and Savransky, D., *Theoretical limits on bright star astrometry with multi-conjugate adaptive optics using a diffractive pupil*, Proc. SPIE 8447, 84470P, 2012.

9. Savransky, D. and Kasdin, N. J., *Optimal Estimation for Exoplanet Data Streams*, AAS Meeting #217, #318.02, 2011

10. Savransky, D., Groff, T. D., Kasdin, N. J., *Experimental Verification of Bayesian Planet Detection Algorithms with a Shaped Pupil Coronagraph*, In the Spirit of Lyot, 2010

11. Savransky, D., Spergel, D. N., Kasdin, N. J., Cady, E., Lisman, P. D., Pravdo, S. H., Shaklan, S. B., Fujii Y., *Occulting Ozone Observatory science overview*, Proc. SPIE, 7731, 2010.

12. Savransky, D., Kasdin, N. J., *Dynamic Filtering for the Analysis of Astrometric and Radial Velocity Data Sets for the Detection of Exoplanets*, AIAA Guidance, Navigation, and Control, 6083, 2009.

13. Savransky, D. and Kasdin, N. J. *Design Reference Mission Construction for Planet Finders*, Proc. SPIE, 7010, 70101T, 2008.