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## **ASTR 160 – Frontiers and Controversies in Astrophysics**

### **Update 1 – The Kepler Mission**

1. Radial Velocity Method. Image credit: Exoplanet.org, [exoplanets.org/esp/51peg/51peg.shtml](http://exoplanets.org/esp/51peg/51peg.shtml) (Accessed June 2012)

Transit Method. Image credit: Brown, et al. HST Time-Series Photometry of the Transiting Planet of HD 209458, *Astrophysical Journal*, vol. 552, no. 2, 2001.

3. Kepler Field of View. Image credit: NASA, <http://kepler.nasa.gov> (Accessed June 2012)

4. HAT-P\_7b data from the ground. Image credit: A. Pal et al. HAT-P-7b: An Extremely Hot Massive Planet Transiting a Bright Star in the Kepler Field, *Astrophysics Journal*, 680:1450-1456, 2008.

Kepler Commissioning Data. Image credit: W. Borucki et al. Kepler's Optical Phase Curve of the Exoplanet HAT-P-7b, *Science* 7 August 2009: vol. 325, no. 5941, 2009.

5. Sizes of Planet Candidates. Image credit: NASA, <http://nasa.gov> (Accessed June 2012)

6. Kepler Results (Feb. 28, 2012). Image credit: NASA, <http://kepler.nasa.gov> (Accessed June 2012)

7. Kepler Candidates. Image credit: NASA, <http://kepler.nasa.gov> (Accessed June 2012)

8. Kepler-11: Six Planets. Image credit: NASA, <http://kepler.nasa.gov> (Accessed June 2012)

9. Planet transits. Image credit: Lissauer, et al. A closely packed system of low-mass, low-density planets transiting Kepler-11, *Nature*, vol. 470, no. 7332, 3 February 2011.

10. Kepler-11 System. Image credit: NASA, <http://nasa.gov> (Accessed June 2012)

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11. Kepler 11 Solar System Comparison. Image credit: NASA, <http://nasa.gov> (Accessed June 2012)

12. Cover of Nature: International Weekly Journal of Science. Image credit: Nature, vol. 470, no. 7332, 3 February 2011.

14. Kepler System 36. Image credit: Harvard-Smithsonian Center for Astrophysics/David Aguilar, <http://nasa.gov> (Accessed June 2012)

15. Planethunters.org. Image credit: Planethunters.org.

Brightness of a Star vs. Time. Image credit: Planethunters.org.