Curriculum Vitae

Alex Fitts

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Education

- **University of Texas at Austin**—Austin, TX (2015-Present)
  Ph.D. Candidate since April, 2016
  - Projected Ph.D. Date: May, 2018
- **University of Maryland**—College Park, MD (2012-2015)
  Masters degree in Astrophysics, May 2014
- **University of Connecticut Storrs**—Storrs, CT (2008-2012)
  Honors B.S. degree in Physics, cum laude, May 2012

Experience

- **University of Texas at Austin**—Austin, TX
  Graduate Student, Advisor: Mike Boylan-Kolchin: May 2015–present
  - Currently simulating cosmological zoom-in simulations of dwarf galaxies in an attempt to address the small scale issues of ΛCDM
- **University of Maryland**—College Park, MD
  Graduate Student, Advisor: Chris Reynolds: May 2012–2014
  - Completed 2nd Year Project: *A resolution and parameter space study of low frequency oscillations in 3D global accretion disk simulations.*
- **Harvard-Smithsonian Center for Astrophysics**—Cambridge, MA
  Visiting Student, worked under Vasili Kharchenko: June 2011–March 2012
  - Created a spatial distribution computer model of a cometary atmosphere for my Senior Thesis. Explored how photo-desorption directly affects the production rate of certain mother molecules.
- **Phillip Gould's UCONN Lab**—Storrs, CT
  Undergrad research: February, 2010–June, 2011
  - Actively mode-locked a semiconductor laser diode through RF modulation of the laser diode's drive current. Our goal was to create a pulsed laser with pico-second long pulses.

Publications

- The Local Group as a time machine: studying the high-redshift Universe with nearby galaxies:
  Boylan-Kolchin M., Weisz D. R., Johnson B. D., Bullock J. S., Conroy C., Fitts A., 2015, MNRAS, 453, 1503

- The no-spin zone: rotation vs dispersion support in observed and simulated dwarf galaxies: Wheeler, C., Pace, A. B., Bullock, J. S., Boylan-Kolchin M., Onorbe, J., Fitts A., et al. 2015, ArXiv e-prints, arXiv:1511.01095

Skills

- **Computer Languages and Programs:**
  - Proficient in C, Python, LaTeX, Mathematica, MPI, OpenMP
  - Familiar with MatLab, Origin, CAD

Selected Achievements and Activities

- Invited to attend the International High Performance Computing Summer School in Solvenia in June 2016
- Recognized as a Distinguished Graduate Student Teacher 2013-2014
- UCONN Honor's Program, including a Senior Thesis detailing my cometary model
- Inducted into the Physics Honors Society in Spring 2011.
- Member of the American Astronomical Society and the Americal Physical Society