

Education

- 2007 Ph. D. Astronomy, University of Maryland
2003 M. S. Astronomy, University of Maryland
2000 B. S. Physics, University of Kentucky, graduated Summa Cum Laude

Awards and Honors

- 2000 Phi Beta Kappa
1999 Sigma Pi Sigma
1993 Eagle Scout

Research Experience

- 2007- Postdoc working with Paul Goldsmith at Jet Propulsion Laboratory
2007 Member of the *Gould's Belt* Spitzer Legacy Science Program (PI Lori Allen). Same duties as with *c2d*.
2003-06 Member of the *Cores to Disks* Spitzer Legacy Science Program (PI Neal Evans). In charge of band merging of source extractions from IRAC and MIPS instruments, source visualization, and automated source classification.
2002-07 Research Assistant to Lee Mundy at the University of Maryland.

Refereed Publications

1. **Chapman, N. L.**, Lai, S.-P., Mundy, L. G., Evans, N. J., II, et al. *The Spitzer c2d Survey of Large, Nearby, Interstellar Clouds. IV. Lupus Observed with MIPS*. 2007, ApJ, 667, 288.
2. Harvey, P. M., **Chapman, N. L.**, Lai, S.-P., Evans, N. J., II, et al. *The Spitzer c2d Survey of Large, Nearby, Interstellar Clouds. II. Serpens Observed with IRAC*. 2006, ApJ, 644, 307.
3. Young, K. E., Harvey, P. M., Brooke, T. Y., **Chapman, N.**, et al. *The Spitzer c2d Survey of Large, Nearby, Interstellar Clouds. I. Chamaeleon II Observed with MIPS*. 2005, ApJ, 628, 283.

Conference Proceedings

1. **Chapman, N. L.**, Mundy, L. G., Lai, S.-P., François Ménard, & the c2d team. *Dust Properties and the Extinction Law in the Serpens Molecular Cloud*, 2005, BAAS, 37, 1247
2. Lai, S.-P., **Chapman, N. L.**, Mundy, L. G., & Evans, N. J., II. *Dust Extinction in Molecular Clouds: Results from the Spitzer c2d Legacy Project* 2005, Protostars and Planets V, 8601
3. Mundy, L. G., **Chapman, N. L.**, Lai, S.-P., & the c2d team. *The Lupus Molecular Cloud Observed with Spitzer*, 2005, Protostars & Planets V, 8586
4. **Chapman, N. L.**, Mundy, L. G., Lee, C.-F., & White, S. M. *Investigating the HH 212 Molecular Outflow: the Jet- and Wind-Driven Models*. 2002, BAAS, 34, 1133

Observing Experience

- Berkeley-Illinois-Maryland Association (BIMA) millimeter-wave interferometer.
- Kitt Peak National Observatory (KPNO) 4-meter Mayall telescope with FLAMINGOS, the FLoridA Multi-object Imaging Near-IR Grism Observational Spectrometer.
- Spitzer Space Telescope using the InfraRed Array Camera (IRAC) and the Multiband Imaging Photometer for Spitzer (MIPS) Instruments.

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Teaching Experience

- 2004-07 I have mentored seven students, up to two simultaneously, working with the *Cores to Disks* and *Gould's belt* Spitzer Legacy Science Programs. I was in charge of training the students in software usage, managing them while reducing data, and leading them in small science projects using the Spitzer data.
- 2002 Teaching Assistant: Astronomy 100 (Introduction to Astronomy). I was responsible for leading discussion sections twice each week with approximately 35 students in each section.
- 2001 Teaching Assistant: Astronomy 101 (General Astronomy). I was responsible for leading a discussion class and a separate laboratory class once each week.

Technical Skills

Languages : C, Python, L^AT_EX, some HTML
Operating Systems: UNIX, Linux, Windows, Mac OS
Data Reduction: IRAF, PyRAF, WIP, DS9, MIRIAD, and NEMO

- I wrote software to merge detections from many wavelengths (Spitzer IRAC and MIPS, near-IR JHK_s , R , I , Z) into a single SED. This code is efficient enough to merge 100s of thousands of detections on a standard desktop computer. Furthermore, I wrote visualization software to examine the final catalog of sources in a simple manner.
- I developed a near infrared data reduction package from scratch to reduce FLAMINGOS data using PyRAF. This software is a complete pipeline to handle all steps of reduction, from dark/flat/sky subtraction to source extraction, photometric calibration, and mosaicking.