# CIRRICULUM VITA OF NICHOLAS ABEL

## Contact Information

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## Degrees Awarded

- B. A. Franklin College of Indiana (08/95 – 05/99)
- M. S. Miami University of Ohio (08/99 - 07/01)
- Ph. D. University of Kentucky (08/01 - 10/05)

## Current Position

- Post-doctorate researcher, University of Kentucky (10/05 - present)

## Research Interests

- Physics of the interstellar medium
- Star Formation

## Memberships

- American Astronomical Society (AAS)

## Awards & Fellowships

- Catherine and Raymond Cowan Endowed Scholarship in Physics, Franklin College (1997-98)
- Outstanding Teaching Award, Miami of Ohio (2001)
- Outstanding Research Award, Miami of Ohio (2001)
- Kentucky Opportunity Fellowship, University of Kentucky (2001-2003)
- Cochran Fellowship, University of Kentucky (2001-2003)
- Center for Computational Sciences (CCS) Fellowship, University of Kentucky (2004)
- Kentucky Space Grant Consortium Fellowship (KSGC), University of Kentucky (2004)
- CCS Fellowship, University of Kentucky (2005)

## Externally Funded Proposals

Ferland, G. J., Abel, N. P. O'Dell, C. R., Troland, T. H., *Physical Processes in Orion's Veil: A High Resolution UV Absorption Study of the Line of Sight towards the Trapezium,* Hubble Space Telescope GO proposal ID #10124. (2004).

Abel, N. P., Ferland, G. J., O'Dell, C. R., Troland, T. H., *Physical Processes in Orion's Veil: A High Resolution UV Absorption Study of the Line of Sight Towards the Trapezium,* Hubble Space Telescope (HST) AR proposal ID #10636. (2005).

Ferland, G. J., O'Dell, C. R., Abel, N. P., *Dynamical flows in PNe: interpreting HST images on a physical basis,* HST theory proposal ID #10653. (2005).

Sarma, A. P., Abel, N. P., Mayo, E., Ferland, G., Troland, T. H. *High Resolution IRS Mapping of the Star Forming Region NGC 6334 A,* Spitzer Space Telescope GO proposal #20220 (2005).

# LIST OF PUBLICATIONS

1. Abel, N. P. *A Study on the Evolution of the Uranus/Neptune System and the Rotational Dynamics of the Solar System*, Master's Thesis at Miami University of Ohio (2001)
2. Abel N., Bryant A., Dhakal P., et al. *Observational Consequences of Fine-Structure Line Optical Depths on Infrared Spectral Diagnostics,* PASP 115, 188 (2003)
3. Abel, N. P., Brogan, C. L., Ferland, G. J., O'Dell, C. R., Shaw, G., Troland, T. H. *Physical Conditions in Orion's Veil*, ApJ 609, 247-260 (2004)
4. Ferland, G. J., Abel, N. P., Davidson, K., Smith, N., *Physical Conditions in the Homunculus*, *The Fate of the Most Massive Stars*, ASPC, 332, 298F (2005) astro-ph/0501485
5. Shaw G., Ferland G. J., Abel N. P., Stancil P. C., and van Hoof P. A. M., *Molecular Hydrogen in Star Forming Regions: Implementation of its Micro-physics in Cloudy*, ApJ, 624, 794S (2005)
6. Abel, N. P., Ferland, G. J., van Hoof, P. A. M., & Shaw, G., *Self-Consistent Calculations of Physical Conditions in Star-Forming Regions*, accepted for publication in ApJ (anticipated publication date – 11/2005). astro-ph/0506514
7. Shaw G., Ferland G. J., Srianand, R., Stancil P. C., & Abel, N. P. *Physical Conditions in the ISM Towards HD185418*, submitted to ApJ in May (2005)
8. Abel, N. P., Ferland, G. J., O'Dell, C. R., Shaw, G., Troland, T. H. *Physical Conditions in Orion's Veil II: a Multi-component Study of the Line of Sight toward the Trapezium*, submitted to ApJ in August (2005).
9. Abel, N. P. & Ferland, G. J. *Determining the Role of Magnetic Fields in Extragalactic Star Forming Regions.* In preparation.
10. Ferland, G. J., et al. *Inner Shell Transitions, Their Spectral Signitures, and Effects on Ionization*. In preparation.
11. Mayo, E., Abel, N. P., Troland, T. H., Sarma, A. P., & Lockett, P. B. *VLA OH Zeeman Observations of the NGC 6334 Complex Source A*. In preparation.
12. M. Rollig, et al. *A PDR-Code Comparison Study*. In preparation.