

DR RICHARD IGNACE

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QUALIFICATIONS

I have been a Research Astrophysicist and/or University Professor for over ten years. I have strong skills in problem solving, analysis, and modeling of data, both qualitative and quantitative approaches. I am an exceptional communicator and manager. I thrive in an environment of collaborative interactions for the purpose of achieving goals and accomplishing tasks. I am an excellent teacher, and teachable; I can lead and be led. I have a personality that is affable, confident, relaxed: I enjoy people, and people are comfortable working with me.

I seek new challenges in areas of data analysis, modeling, and project management.

POSITIONS HELD

- Aug 2007 - present, Associate Professor: East Tennessee State University
- Aug 2003 - Jul 2007, Assistant Professor: East Tennessee State University
- Sep 2002 - Jul 2003, Assistant Scientist: University of Wisconsin
- Aug 1999 - Aug 2002, Visiting Assistant Professor: University of Iowa
- Nov 1996 - Aug 1999, Postdoctoral Research Assistant: University of Glasgow

EDUCATION

- Ph.D. in Astronomy, University of Wisconsin, 1996
- M.S. in Physics, University of Wisconsin, 1994
- M.S. in Astronomy, University of Wisconsin, 1993
- B.S. in Astronomy, Indiana University, 1991

SKILLS AND EXPERIENCE

- Skilled Manager: Good at managing time and coordinating tasks. Have taught numerous university courses (1000+ students), supervised many student research projects as well as a postdoctoral researcher, co-authored the popular astronomy book *Understanding the Universe* (2002, Prinja & Ignace), and organized research meetings
- Computing: C, Fortran, Unix, Microsoft, IDL, IRAF, latex, supermongo
- Research: Numerical modeling, interpretation of data, diagnostic techniques
- Competitive for grant funding (e.g., NASA, NSF)
- Strong record of publications - dozens of papers and hundreds of citations

REFERENCES

1. Prof S. R. Spangler
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University of Iowa
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Iowa City, IA 52242
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2. Prof J. C. Brown
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3. Prof J. P. Cassinelli
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University of Wisconsin
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4. Assoc. Prof and Chair D. G. Luttermoser
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SELECTED FUNDING AWARDS

- 2008, NSF – “Tracing the Spectropolarimetric History of Circumstellar Structures from High-Mass Stars through Supernovae,” **Ignace** (Co-PI), Hoffman (Co-PI) (\$997,702)
- 2007, FUSE (NASA) – “Non-Spherical Winds and Disks around Rapidly Rotating, Luminous Stars,” **Ignace** (PI), Kraus (\$20,000)
- 2006, Suzaku (NASA) – “X-ray Study of Hot Plasma in the Interacting Binary Beta Lyrae,” **Ignace** (PI), Hamann, Hoffman, Oskinova, Waldron (\$25,000)
- 2003, Chandra-Theory (NASA) – “The Clumpy Outflows of Hot Stars and Their X-ray Signatures,” Cassinelli (PI), Lazarian, Cho, **Ignace** (\$75,000)
- 2001, NSF – “Circumstellar Magnetic Field Diagnostics from the Polarization of Line Scattering,” Nordsieck (PI), Cassinelli, **Ignace**, Lazarian (\$394,000)
- 1999, NSF – “Probing Circumstellar Envelopes with Gravitational Microlensing”, **Ignace** (PI), Bjorkman (\$196,000)

SELECTED PUBLICATIONS

- Prinja, **Ignace**. *Understanding the Universe*. 2002, a popular-level astronomy book (Philips)
- **Ignace**, Oskinova, Waldron, Hoffman, Hamann. “Phase-Dependent X-ray Observations of the beta Lyrae System: No eclipse in the soft band.” 2008, *Astronomy & Astrophysics*, 477, L37
- **Ignace**, Bjorkman, Bryce. “Variable Polarization from Spherical Circumstellar Envelopes during Caustic Crossing Events.” 2006, *Monthly Notices of the RAS*, 366, 92
- **Ignace** and Gayley (eds). *The Nature and Evolution of Disks around Hot Stars*. 2005, proceedings of a workshop, ASP Conf. Ser. #337
- **Ignace**, Gayley. “Profile Shapes for Optically Thick X-ray Emission Lines from Stellar Winds.” 2002, *Astrophysical Journal*, 568, 954
- **Ignace**, Cassinelli, Bjorkman. “WCFields: Magnetic Rotating Stellar Wind Models from Wind Compression Theory.” 1998, *Astrophysical Journal*, 505, 910
- **Ignace**, Nordsieck, Cassinelli. “The Hanle Effect as a Diagnostic of Magnetic Fields in Stellar Envelopes I. Theoretical Results for Integrated Line Profiles.” 1997, *Astrophysical Journal*, 486, 550