
CONTACT INFORMATION	Yale Astronomy Department J.W. Gibbs Laboratory 260 Whitney Avenue New Haven, CT 06520	+1-203-432-3016 jonathan.b.foster@yale.edu http://www.astro.yale.edu/foster
RESEARCH INTERESTS	Understand the formation of stars of all masses. Characterize dust in the interstellar medium.	
EDUCATION	Harvard University , Cambridge, MA Ph.D., <i>Astronomy</i> , November 2009 <ul style="list-style-type: none"> • Thesis Topic: <i>Scattered, Extinguished, Emitted; Three Views of Dust in Perseus</i> • Advisor: Alyssa Goodman A.M., <i>Astronomy</i> , June 2005 California Institute of Technology , Pasadena, CA B.S., <i>Astronomy (With Honors)</i> , June 2003	
APPOINTMENTS	YCAA Prize Postdoctoral Fellow Yale Center for Astronomy and Astrophysics (YCAA), Yale University Postdoctoral Research Assistant Institute of Astrophysical Research, Boston University Supervisor: James M. Jackson Lecturer Astronomy Department, Boston University Graduate Research Fellow Astronomy Department, Harvard University	2012 to present 2009 to 2012 2010 to 2011 2003 to 2009
TEACHING EXPERIENCE	Lecturer AS850 - Astrophysics Seminar Head Teaching Fellow Science A-47 - Cosmic Connections Instructor: Dave Charbonneau Teaching Fellow Science A-47 - Cosmic Connections Instructor: Lars Hernquist and Dave Charbonneau Teaching Fellow QR 46 - Visual Display of Quantitative Information Instructor: Alyssa Goodman	Fall 2010, Spring 2011 Fall 2005, 2006 Fall 2004, 2005, 2006 Spring, 2005
SERVICE	Organized Yale Center for Astronomy & Astrophysics Seminar Yale Telescope Allocation Committee Organized Boston University Colloquium Series Webmaster for MALT90 Project Webmaster for COMPLETE Project Student Rep. on the Committee for Academic Standards	2013 - 2014 2013B, 2014A, 2014B 2010 - 2011 2009 - present 2003-2009 2005-2008

- SELECTED RECENT PRESENTATIONS
- Invited Talks
- University of Vienna Institute of Astronomy Seminar, Vienna, Austria May 2014
 - Stony Brook Astronomy Seminar, Stony Brook, NY Dec 2013
 - Hamburg Observatory Colloquium, Hamburg Germany July 2013
 - Wesleyan Astronomy Department Colloquium, Middletown, CT March 2013
 - Yale Center for Astronomy and Astrophysics Seminar, New Haven, CT Apr 2012
 - Special Seminar, MPIA-Heidelberg, Germany Feb 2012
 - Boston University Astrophysics Seminar, Boston, MA, Feb 2010
- Other Talks
- ISM Seminar, Manchester, UK Aug 2013
 - JILA Lunch Talk, Boulder, CO Feb 2013
 - AAS Meeting, Long Beach, CA Jan 2013
 - Trends in Radio Astronomy in the ALMA Era, Hakone, Japan Dec 2012
 - Boston University Open Night Lecture, Boston, MA Dec 2011
 - Virginia-NRAO Astronomy Lunch Talk, Charlottesville, VA Nov 2011
 - Harvard-Smithsonian CfA Star-Formation Lunch Talk, Cambridge, MA Aug 2010

- COMPUTERS
- Programming Languages:
- Python, IDL, C, C++, Java, Javascript, Perl
- Astronomy Software:
- IRAF, Source Extractor, CLASS, CASA

- OBSERVATIONAL EXPERIENCE
- Optical/NIR:
- Keck 10 meter multi-object NIR spectroscopy with MOSFIRE
 - Keck 10 meter adaptive-optics NIR photometry with NIRC2
 - Palomar 5.1 meter NIR imaging with WIRC
 - IRTF 3 meter NIR spectroscopy with SPeX
 - MMT 6.5 meter optical photometry with Megacam
 - CTIO 4 meter NIR photometry with ISPI
 - Calar Alto 3.5 meter NIR photometry with OMEGA 2000
 - Mount Hopkins 1.5 meter optical spectroscopy with FAST
 - Mount Hopkins 1.2 meter optical photometry with 4shooter
- Radio:
- ALMA (Cycle 2 time awarded as P.I.)
 - GBT 100 meter KFPA + VEGAS (commissioning)
 - Mopra 22 meter on-the-fly 90 GHz mapping with MOPS
 - GBT 100 meter HI self-absorption mapping
 - FCRAO 12 meter on-the-fly CO mapping with SEQUOIA
 - GBT 100 meter CCS and NH3 pointed observations and mapping
 - CSO 10 meter spectral line mapping

- REFERENCES
- Alyssa A. Goodman
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FIRST-AUTHOR
REFEREED
JOURNAL
PUBLICATIONS

8. **Foster, J.B.**, Arce, H.G., Kassis, M., Sanhueza, P., Jackson, J.M., Finn, S.C., Offner, S., Sakai, T., Sakai, N., Yamamoto, S., Guzmán, A.E., Rathborne, J.M., *Distributed Low-mass Star Formation in the IRDC G34.43+00.24*, 2014, ApJ, 791, 108.
7. **Foster, J.B.**, Rathborne, J.M., Sanhueza, P., Claysmith, C., Whitaker, J.S., Jackson, J.M., Mascoop, J.L., Wienen, M., Breen, S.L., Herpin, F., Duarte-Cabral, A., Csengeri, T., Contreras, Y., Indermuehle, B., Barnes, P.J., Walsh, A.J., Cunningham, M.R., Britton, T.R., Voronkov, M.A., Urquhart, J.S., Alves, J., Jordan, C.H., Hill, T., Hoq, S., Brooks, K.J., Longmore, S.N., *Characterisation of the MALT90 Survey and the Mopra Telescope at 90 GHz*, 2013, PASA, 30, 38.
6. **Foster, J.B.**, Mandel, K.S., Pineda, J.E., Covey, K.R., Arce, H.G., Goodman, A.A., *Evidence for grain growth in molecular clouds: A Bayesian examination of the extinction law in Perseus*, 2013, MNRAS, 428, 1606.
5. **Foster, J.B.**, Stead, J.J., Benjamin, R.A., Hoare, M.G., Jackson, J.M., *Distances to Dark Clouds: Comparing Extinction Distances to Maser Parallax Distances*, 2012, ApJ, 751, 157.
4. **Foster, J.B.**, Jackson, J.M., Barnes, P.J., Barris, E., Brooks, K., Cunningham, M., Finn, S.C., Fuller, G.A., Longmore, S.N., Mascoop, J.L., Peretto, N., Rathborne, J., Sanhueza, P., Schuller, F., Wyrowski, F., *The Millimeter Astronomy Legacy Team 90 GHz (MALT90) Pilot Survey*, 2011, ApJs, 197, 25.
3. **Foster, J.B.**, Rosolowsky, E.W., Kauffmann, J., Pineda, J.E., Borkin, M.A., Caselli, P., Myers, P.C., Goodman, A.A., *Dense Cores in Perseus: The Influence of Stellar Content and Cluster Environment*, 2009, ApJ, 696, 298.
2. **Foster, J.B.**, Román-Zúñiga, C.G., Goodman, A.A., Lada, E.A., Alves, J., *Hunting Galaxies to (and for) Extinction*, 2008, ApJ, 674, 831.
1. **Foster, J.B.**, Goodman, A.A., *Cloudshine: New Light on Dark Clouds*, 2006, ApJL, 636, 105.

OTHER REFEREED
JOURNAL
PUBLICATIONS

33. Bally, J., Rathborne, J.M., Longmore, S.N., Jackson, J.M., Alves, J.F., Bressert, E., Contreras, Y., **Foster, J.B.**, Garay, G., Ginsburg, A., Johnston, K.G., Kruijssen, J.M., Testi, L., Walsh, A.J., *Absorption Filaments toward the Massive Clump G0.253+0.016*, 2014, ApJ, 795, 28.
32. Cottaar, M., Covey, K.R., Meyer, M.R., Nidever, D.L., Stassun, K.G., **Foster, J.B.**, Tan, J.C., Chojnowski, S.D., da Rio, N., Flaherty, K.M., Frinchaboy, P.M., Skrutskie, M., Majewski, S.R., Wilson, J.C., Zasowski, G., *IN-SYNC I: Homogeneous Stellar Parameters from High-resolution APOGEE Spectra for Thousands of Pre-main Sequence Stars*, 2014, ApJ, 794, 125.
31. Yanagida, T., Sakai, T., Hirota, T., Sakai, N., **Foster, J.B.**, Sanhueza, P., Jackson, J.M., Furuya, K., Aikawa, Y., Yamamoto, S., *ALMA Observations of the IRDC Clump G34.43+00.24 MM3: 278 GHz Class I Methanol Masers*, 2014, ApJL, 794, 10.
30. Rathborne, J.M., Longmore, S.N., Jackson, J.M., Kruijssen, J.M., Alves, J.F., Bally, J., Bastian, N., Contreras, Y., **Foster, J.B.**, Garay, G., Testi, L., Walsh, A.J., *Turbulence sets the initial conditions for star formation in high-pressure environments*, 2014, accepted to ArXiv e-prints.

29. Rathborne, J.M., Longmore, S.N., Jackson, J.M., **Foster, J.B.**, Contreras, Y., Garay, G., Testi, L., Alves, J.F., Bally, J., Bastian, N., Kruijssen, J.M., Bressert, E., *G0.253+0.016: A Centrally Condensed, High-mass Protocluster*, 2014, ApJ, 786, 140.
28. Milisavljevic, D., Margutti, R., Crabtree, K.N., **Foster, J.B.**, Soderberg, A.M., Fesen, R.A., Parrent, J.T., Sanders, N.E., Drout, M.R., Kamble, A., Chakraborti, S., Pickering, T.E., Cenko, S.B., Silverman, J.M., Filippenko, A.V., Kirshner, R.P., Mazzali, P., Maeda, K., Marion, G.H., Vinko, J., Wheeler, J.C., *Interaction between the Broad-lined Type Ic Supernova 2012ap and Carriers of Diffuse Interstellar Bands*, 2014, ApJL, 782, 5.
27. Hoq, S., Jackson, J.M., **Foster, J.B.**, Sanhueza, P., Guzmán, A., Whitaker, J.S., Claysmith, C., Rathborne, J.M., Vasyunina, T., Vasyunin, A., *Chemical Evolution in High-mass Star-forming Regions: Results from the MALT90 Survey*, 2013, ApJ, 777, 157.
26. Jackson, J.M., Rathborne, J.M., **Foster, J.B.**, Whitaker, J.S., Sanhueza, P., Claysmith, C., Mascoop, J.L., Wienen, M., Breen, S.L., Herpin, F., Duarte-Cabral, A., Csengeri, T., Longmore, S., Contreras, Y., Indermuehle, B., Barnes, P.J., Walsh, A.J., Cunningham, M.R., Brooks, K.J., Britton, T.R., Voronkov, M.A., Urquhart, J.S., Alves, J., Jordan, C.H., Hill, T., Hoq, S., Finn, S., C., S., Bains, I., Bontemps, S., Bronfman, L., Caswell, J.L., Deharveng, L., Ellingsen, S.P., Fuller, G.A., Garay, G., Green, J.A., Hindson, L., Jones, P.A., Lenfestey, C., Lo, N., Lowe, V., Mardones, D., Menten, K.M., Minier, V., Morgan, L.K., Motte, F., Muller, E., Peretto, N., Purcell, C.R., Schilke, P., Schneider-Bontemps, N., Schuller, F., Titmarsh, A., Wyrowski, F., Zavagno, A., *MALT90: The Millimetre Astronomy Legacy Team 90 GHz Survey*, 2013, PASA, 30, 57.
25. Sakai, T., Sakai, N., **Foster, J.B.**, Sanhueza, P., Jackson, J.M., Kassis, M., Furuya, K., Aikawa, Y., Hirota, T., Yamamoto, S., *ALMA Observations of the IRDC Clump G34.43+00.24 MM3: Hot Core and Molecular Outflows*, 2013, ApJL, 775, 31.
24. Sanhueza, P., Jackson, J.M., **Foster, J.B.**, Jimenez-Serra, I., Dirienzo, W.J., Pillai, T., *Distinct Chemical Regions in the 'Prestellar' Infrared Dark Cloud G028.23-00.19*, 2013, ApJ, 773, 123.
23. Chen, X., Arce, H.G., Zhang, Q., Bourke, T.L., Launhardt, R., Jørgensen, J.K., Lee, C.-F., **Foster, J.B.**, Dunham, M.M., Pineda, J.E., Henning, T., *SMA Observations of Class 0 Protostars: A High Angular Resolution Survey of Protostellar Binary Systems*, 2013, ApJ, 768, 110.
22. Sanhueza, P., Jackson, J.M., **Foster, J.B.**, Garay, G., Silva, A., Finn, S.C., *Chemistry in Infrared Dark Cloud Clumps: A Molecular Line Survey at 3 mm*, 2012, ApJ, 756, 60.
21. Longmore, S.N., Rathborne, J., Bastian, N., Alves, J., Ascenso, J., Bally, J., Testi, L., Longmore, A., Battersby, C., Bressert, E., Purcell, C., Walsh, A., Jackson, J., **Foster, J.**, Molinari, S., Meingast, S., Amorim, A., Lima, J., Marques, R., Moitinho, A., Pinhao, J., Rebordao, J., Santos, F.D., *G0.253 + 0.016: A Molecular Cloud Progenitor of an Arches-like Cluster*, 2012, ApJ, 746, 117.
20. Pineda, J.E., Arce, H.G., Schnee, S., Goodman, A.A., Bourke, T., **Foster, J.B.**, Robitaille, T., Tanner, J., Kauffmann, J., Tafalla, M., Caselli, P., Anglada, G., *The Enigmatic Core L1451-mm: A First Hydrostatic Core? Or a Hidden VeLLO?*, 2011, ApJ, 743, 201.

19. Jones, D.O., West, A.A., **Foster, J.B.**, *Using M Dwarf Spectra to Map Extinction in the Local Galaxy*, 2011, AJ, 142, 44.
18. Pineda, J.E., Goodman, A.A., Arce, H.G., Caselli, P., **Foster, J.B.**, Myers, P.C., Rosolowsky, E.W., *Direct Observation of a Sharp Transition to Coherence in Dense Cores*, 2010, ApJL, 712, 116.
17. Schnee, S., Enoch, M., Noriega-Crespo, A., Sayers, J., Terebey, S., Caselli, P., **Foster, J.**, Goodman, A., Kauffmann, J., Padgett, D., Rebull, L., Sargent, A., Shetty, R., *The Dust Emissivity Spectral Index in the Starless Core TMC-1C*, 2010, ApJ, 708, 127.
16. Schnee, S., Rosolowsky, E., **Foster, J.**, Enoch, M., Sargent, A., *The Gas Temperature of Starless Cores in Perseus*, 2009, ApJ, 691, 1754.
15. Goodman, A.A., Rosolowsky, E.W., Borkin, M.A., **Foster, J.B.**, Halle, M., Kauffmann, J., Pineda, J.E., *A role for self-gravity at multiple length scales in the process of star formation*, 2009, Nature, 457, 63.
14. Rosolowsky, E.W., Pineda, J.E., **Foster, J.B.**, Borkin, M.A., Kauffmann, J., Caselli, P., Myers, P.C., Goodman, A.A., *An Ammonia Spectral Atlas of Dense Cores in Perseus*, 2008, ApJs, 175, 509.
13. Ridge, N.A., Schnee, S.L., Goodman, A.A., **Foster, J.B.**, *The COMPLETE Nature of the Warm Dust Shell in Perseus*, 2006, ApJ, 643, 932.
12. Ridge, N.A., Di Francesco, J., Kirk, H., Li, D., Goodman, A.A., Alves, J.F., Arce, H.G., Borkin, M.A., Caselli, P., **Foster, J.B.**, Heyer, M.H., Johnstone, D., Kosslyn, D.A., Lombardi, M., Pineda, J.E., Schnee, S.L., Tafalla, M., *The COMPLETE Survey of Star-Forming Regions: Phase I Data*, 2006, AJ, 131, 2921.
11. Mochejska, B.J., Stanek, K.Z., Sasselov, D.D., Szentgyorgyi, A.H., Adams, E., Cooper, R.L., **Foster, J.B.**, Hartman, J.D., Hickox, R.C., Lai, K., Westover, M., Winn, J.N., *Planets in Stellar Clusters Extensive Search. IV. A Detection of a Possible Transiting Planet Candidate in the Open Cluster NGC 2158*, 2006, AJ, 131, 1090.
10. Błażejowski, M., Blaylock, G., Bond, I.H., Bradbury, S.M., Buckley, J.H., Carter-Lewis, D.A., Celik, O., Cogan, P., Cui, W., Daniel, M., Duke, C., Falcone, A., Fegan, D.J., Fegan, S.J., Finley, J.P., Fortson, L., Gammell, S., Gibbs, K., Gillanders, G.G., Grube, J., Gutierrez, K., Hall, J., Hanna, D., Holder, J., Horan, D., Humensky, B., Kenny, G., Kertzman, M., Kieda, D., Kildea, J., Knapp, J., Kosack, K., Krawczynski, H., Krennrich, F., Lang, M., LeBohec, S., Linton, E., Lloyd-Evans, J., Maier, G., Mendoza, D., Milovanovic, A., Moriarty, P., Nagai, T.N., Ong, R.A., Power-Mooney, B., Quinn, J., Quinn, M., Ragan, K., Reynolds, P.T., Rebillot, P., Rose, H.J., Schroedter, M., Sembroski, G.H., Swordy, S.P., Syson, A., Valcarel, L., Vassiliev, V.V., Wakely, S.P., Walker, G., Weekes, T.C., White, R., Zweerink, J., VERITAS Collaboration, , Mochejska, B., Smith, B., Aller, M., Aller, H., Teräsranta, H., Boltwood, P., Sadun, A., Stanek, K., Adams, E., **Foster, J.**, Hartman, J., Lai, K., Böttcher, M., Reimer, A., Jung, I., *A Multiwavelength View of the TeV Blazar Markarian 421: Correlated Variability, Flaring, and Spectral Evolution*, 2005, ApJ, 630, 130.
9. Hillenbrand, L.A., **Foster, J.B.**, Persson, S.E., Matthews, K., *The Y Band at 1.035 Microns: Photometric Calibration and the DwarfStellar/Substellar Color Sequence*, 2002, PASP, 114, 708.