CURRICULUM VITÆ

Brenda Christine Matthews
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Nationality: Canadian
Highest Academic Degree: PhD in Astronomy (2001, McMaster University)

Current Position: Associate Research Officer at NRC Canada/ National Science Infrastructure Portfolio/Radio Astronomy Program/Millimetre Astronomy Group

Previous Positions: Plaskett Fellow, NRC-Herzberg (2004-2008)
BIMA Postdoctoral Fellow, University of California at Berkeley (2001-2004)

Education:

2001 PhD in Astronomy
McMaster University, Hamilton, ON, Canada
Dissertation: *A Polarimetric Study of Magnetic Fields in Star-Forming Molecular Clouds*
Advisor: Dr. Christine Wilson

1996 MSc in Radio Astronomy
University of Calgary, Calgary, AB, Canada
Dissertation: *G55.0 + 0.3 - An Ancient Supernova Remnant?*,
Advisor: Dr. A.R. Taylor

1994 B.A.Sc (Combined Honours Physics)
McMaster University, Hamilton, ON, Canada
Dissertation: *An Analysis of the Properties of the HII Region NGC 595*
Advisor: Dr. Christine Wilson

Research Experience:

I have extensive observing experience in the infrared to centimetre regime, using both single dish (James Clerk Maxwell Telescope, Herschel Space Observatory, Spitzer Space Telescope, the Green Bank Telescope, the Hubble Space Telescope, the Parkes Telescope, the IRAM 30m, the Swedish-European Submillimeter Telescope and the Mopra Telescope in Australia) and interferometric (ALMA, the Very Large Array, Berkeley-Illinois-Maryland Association Array, Smithsonian SubMillimeter Array, Combined Array for Research in Millimeter-wave Astronomy, the Dominion Radio Astrophysical Observatory, Owens Valley Radio Observatory and the JCMT-CSO interferometer) telescopes. These observations include continuum and spectroscopy work in both intensity and polarimetric observing modes. In fact, polarimetry of star-forming regions was the focus of my PhD thesis and much of my work at UC Berkeley.

I am the PI of the Herschel Open Time Key Project “DEBRIS: Disc Emission via a Bias-free Reconnaissance in the Infrared/Submillimetre”, allocated 140 hours of time. I am the second investigator of the Spitzer Gould Belt Survey and am involved in two JCMT Legacy projects, most prominently as a coordinator of the “SCUBA-2 Unbiased Nearby Stars” Survey. I am also a member of the GPI Exoplanet Survey team.

Honours & Awards:

HIA Internal Award for Science Leadership (Feb 2011)	
NSERC Discovery Accelerator Supplement (2011-2014)	$120k over 3 years
NSERC Discovery Grant (2011-2016)	$150k over 5 years
CSA Space Science Enhancement Award (2009-2011)	$184k over 2 years
CSA Fellowship (2008-2011, Declined)	$180k over 3 years
NSERC Postdoctoral Fellowship (2001-2003)	$70k over 2 years
Jansky Fellowship (2001-2003, Declined)	
Best Student Talk, CASCA Meeting (2001)	$200
Ontario Graduate Scholarship (2000-2001)	$11859
NSERC Post-Graduate Scholarship (1998-2000)	$38.6k over 2 years
Dawes Memorial Fellowship for Graduate Studies in Physics, McMaster University (1996)	$2k
Best Student Presentation, CASCA Meeting (1996)	$200

Professional Affiliations:

Canadian Astronomical Society (since 1995)
American Astronomical Society (since 1998)
International Astronomical Union (since 2006)
Astronomical Society of the Pacific (2003-2012)

Career Interruptions:

mid April 2009 - late July 2009 (maternity leave)
mid Jan 2012 - mid June 2012 (maternity leave)

Legacy Surveys & Large Projects:

Principle Investigator, DEBRIS: Disc-Emission via a Bias-free Reconnaissance in the Infrared/ Submillimetre, an Open Time Key Project proposal to the Herschel Space Observatory, allocated 140 hours of time (40+ investigators).

Canadian Co-ordinator, SCUBA-2 Observations of Nearby Stars Survey, a.k.a., JCMT Legacy Debris Disk Survey.

Member: GPI Exoplanet Survey, awarded 600+ hours of Gemini campaign science time to search for exoplanets and debris disks

Member: TADPOL (Telescope Array Doing POLarization) CARMA project

Second Investigator, Spitzer Legacy Survey: Local Star Formation in the Gould Belt, allocated 285 hours in cycle 3 (begun fall 2006) to complete the survey of the Gould Belt with Spitzer in IRAC and MIPS bands.

Member (and Data Archive Contact for Polarimetry pre-rescope), JCMT Legacy Gould Belt Survey of star-forming regions within 0.5 pc.

Team Member, Tests of Ambibolar Diffusion in Isolated Class 0 YSO Cores: A Joint CSO-CARMA Project

Co-investigator, Debris Disks: An Unbiased Nearby A Star Sample, allocated 14 hours to complete the Spitzer observations of A stars within the Herschel DEBRIS sample.

Primary Investigator, Properties of the YSO Populations of Newly Discovered Groups and Clusters, 160 hours allocated on the JCMT

Leader, The SCUBA Polarimeter Archive Project. The goal of this project is to produce useable data products for the community by systematically re-reducing all the SCUBA polarimetry mapping data in the JCMT archive. COMPLETE

Member, Herschel Guaranteed Time SPIRE and PACS SAG 6 Stellar Disk Evolution Project.

Telescope Support Experience

ALMA

1. ALMA In-kind contributions to the North American ALMA Science Center (NAASC) through the MAG at NRC

Cycle 2 (2013-2014)	Contact Scientist for four ALMA allocated programs Contributor to video tutorials
Cycle 1 (2012-2013)	Data Reduction and Quality Assessment for five ALMA programs Contact Scientist for four ALMA allocated programs Contributor to the ALMA Lunch session at CASCA 2013 Contributor to the ALMA Primer
Cycle 0 (2010-2012)	Data Reduction and Quality Assessment for three ALMA programs using CASA; data packaged and delivered to PIs Contact Scientist for two ALMA programs Contributor to the ALMA Primer Participant in OT tests Participant in IT tests Participant in Helpdesk tests/Helpdesk ticket responses Member international Science Web Working Group

Cycle 0 ALMA User Preparation Tutorials
UWO 1 day post-CASCA tutorial (June ~20 people)
HIA Cycle 0 2-day Tutorial (May ~15 people)
University of Victoria seminar "Why you want to use ALMA: Even if you think you don't!" (29 Apr)
University of Toronto Cycle 0 2-day tutorial (April ~25 people)
HIA Early Science Software Tutorial (Jan)

2. ALMA Support outside the MAG

2006	Participant in 3rd ALMA Pipeline Software test (while a Plaskett Fellow at NRC)
2004	Participant in ALMA Pipeline Software test (while at UC Berkeley)

JCMT

2010-present	maintenance and support for SCUPOL archive users
2009	Creation of SCUBA Polarimeter Legacy Catalogue online archive of reduced data

Refereed Publications:

In Preparation

Matthews, B.C., et al. *DEBRIS: A flux-limited survey of 446 nearby stars with Herschel*, in preparation for submission to MNRAS

Matthews, B.C., et al. AU Mic: *Resolved imaging of the AU Mic disk from Herschel and SCUBA-2,* in preparation for submission to the Astrophysical Journal

Submitted

Broekhoven-Fiene, H., Matthews, B.C., & Duchene, G., Di Francesco, J., Jayawardhana, R., Mohanty, & Scholz, A., *An unresolved accretion disk around the brown dwarf KPNO Tau 3*, Astrophysical Journal, submitted

Published

63. Matthews, B.C., Krivov, A.V., Wyatt, M.C., Bryden, G., Eiroa, C., 2014, *Observations, Modeling and Theory of Debris Disks*, to be published in the proceedings of "Protostars & Planets VI" , arXiv.1401.0743, in press

62. Broekhoven-Fiene, H., Matthews, B.C. & 15 co-authors. *The Spitzer Survey of Interstellar Clouds in the Gould Belt. VI. The Auriga/California Molecular Cloud observed with IRAC and MIPS*, 2014, Astrophysical Journal, 786, 37

61. Marshall, J.P., Moro-Martin, A., Eiroa, C., Kennedy, G., Mora, A., Sibthorpe, B., Lestrade, J.-F., Maldonado, J., Sanz-Forcada, J., Wyatt, M.C., Matthews, B., Horner, J., Montesinos, B., Bryden, G., del Burgo, C., Greaves, J., Ivison, R.J., Meeus, G., Olofsson, G., Pilbratt, G.L., White, G.J., 2014, *Correlations between the stellar, planetary and debris components of exoplanet systems observed with Herschel*, 565, 15

60. Duchene, G., Arriaga, P., Wyatt, M.C., Kennedy, G., Sibthrope, B., Lisse, C., Holland, W., Wisniewski, J., Clampin, M., Kalas, P., Pinte, C., Wilner, D., Booth, M., Horner, J., Matthews, B., Greaves, J., 2014, *Spatially Resolved Imaging of the Two-Component Eta Corvi Debris Disk with Herschel*, Astrophysical Journal, 784, 148

59. Dent, W.R.F., Wyatt, M.C., Roberge, A., Augereau, J.-C., Casassus, S., Corder, S., Greaves, J.S., de Gregorio-Monsalvo, I., Hales, A., Jackson, A.P., Hughes, A.M., Lagrange, A.-M., Matthews, B.C., Wilner, D., 2014, *Molecular Gas Clumps from the Destruction of Icy Bodies in the Beta Pictoris Debris Disk*, Science, 343, 1490

58. Mann, R.K., Di Francesco, J., Johnstone, D., Andrews, S.M., Williams, J.P., Bally, J., Ricci, L., Hughes, A.M., Matthews, B.C., 2014, *ALMA Observations of the Orion Proplyds*, Astrophysical Journal, 784, 82

57. Dunham, M.M., Arce, H.G., Mardones, D., Lee, J.-E., Matthews, B.C., Stutz, A.M., Williams, J.P. 2014, *Molecular Outflows Driven by Low-mass Protostars I. Correcting for Underestimates When Measuring Outflow Masses and Dynamical Properties*, Astrophysical Journal, 783, 29

56. Matthews, B.C., Kennedy, G., Sibthorpe, B., Broekhoven-Fiene, H., Booth, M., Macintosh, B., Wyatt, M., Zuckerman, B., Barman, T., & Marois, C. *Resolved Imaging of the HR 8799 Debris Disk with Herschel*, 2014, Astrophysical Journal, 780, 97

55. Kennedy, G.M., Wyatt, M.C., Kalas, P., Duchene, G., Sibthorpe, B., Lestrade, J.-F., Matthews, B.C., Greaves, J.S., 2014, *Discovery of the Fomalhaut C debris disc*, MNRAS, 438, 96

54. Greaves, J.S., Kennedy, G.M., Thureau, N., Eiroa, C., Marshall, J.P., Maldonado, J., Matthews, B.C., Olofsson, G., Barlow, M.J., Moro-Martin, A., + 21 co-authors, 2014, *Alignment in star-debris disc systems seen by Herschel*, MNRAS, 438, 31

53. Panić, O., Holland, W., Wyatt, M., Kennedy, G., Matthews, B., Lestrade, J.F., Sibthorpe, B., Greaves, J., Marshall, J., Phillips, N., Tottle, J. 2013, *First results of the SONS survey: Submillimetre detections of debris discs*, Monthly Notices of the Royal Astronomical Society, 435, 1037

52. Chapman, N., Davidson, J.A., Goldsmith, P., Houde, M., Kwon, W., Li, Z.-Y., Looney, L., Matthews, B., Matthews, T., Novak, G., Peng, R., Vaillancourt, J., Volgeneau, N. 2013, *Alignment Between Flattended Protostellar Infall Envelopes and Ambient Magnetic Fields*, Astrophysical Journal, 770, 151

51. Sadavoy, S.I., Di Francesco, J., Johnstone, D., Currie, M.J., Drabek, E., Hatchell, J., Nutter, D., Andre, Ph., Arzoumanian, D., Benedettini, M., Bernard, J.-P., Duarte-Cabral, A., Fallscheer, C., Friesen, R., Greaves, J., Hennemann, M., Hill, T., Jenness, T., Könyves, V., Matthews, B., Mottram, J. C., Pezzuto, S., Roy, A., Rygl, K., Schneider-Bontemps, N., Spinoglio, L., Testi, L., Tothill, N., Ward-Thompson, D., White, G., 2013, *The Herschel and JCMT Gould Belt Surveys: Constraining Dust Properties in the Perseus B1 Clump with PACS, SPIRE, and SCUBA-2,* Astrophysical Journal, 767, 126

50. Hull, C., Plambeck, R., Bolatto, A., Bower, G., Carpenter, J., Crutcher, R., Fiege, J., Franzmann, E., Hakobian, N., Heiles, C., Houde, Hughes, M.A., Jameson, K., Kwon, W., Lamb, J., Looney, L., Matthews, B., Mundy, L., Pillai, T., Pound, M., Stephens, I., Tobin, J., Vaillancourt, J., Volgenau, N., & Wright, M. 2013, *Misalignment of Magnetic Fields and Outflows in Protostellar Cores*, Astrophysical Journal, 768, 159

49. Dunham, M.M., Arce, H.G., Allen, L.E., Evans, N.J.,II, Broekhoven-Fiene, H., Chapman, N.L., Cieza, L.A., Gutermuth, R.A., Harvey, P.M., Hatchell, J., Huard, T.L., Kirk, J.M., Matthews, B.C., MerÍn, B., Miller, J.E., Peterson, D.E., Spezzi, L. 2013, *The Luminosities of Protostars in the Spitzer c2d and Gould Belt Legacy Clouds*, Astronomical Journal, 145, 94

48. Harvey, P.M., Fallscheer, C., Ginsburg, A., Terebey, S., André, P., Bourke, T., Di Francesco, J., Könyves, V., Matthews, B.C., Peterson, D.E. 2013, *A First Look at the Auriga-California Giant Molecular Cloud with Herschel and the CSO: Census of the Young Stellar Objects and the Dense Gas,* Astrophysical Journal, 764, 133

47. Sibthorpe, B., Ivison, R., Massey, R., Roseboom, I., van der Werf, P., Matthews, B., & Greaves, J. 2013, *A cosmic variance resistant measurement of extragalactic number counts at 100 μm*, Monthly Notices of the Royal Astronomical Society, 428, 6

46. Booth, M., Kennedy, G., Sibthorpe, B., Matthews, B., Wyatt, M., Duchêne, G., Kavelaars, J., Rodriguez, D., Greaves, J., Koning, A., Vican, L., Moro-Martín, A., Kalas, P., Su, K., & Rieke, G. 2013, *Resolved debris discs around A stars in the Herschel DEBRIS survey*, Monthly Notices of the Royal Astronomical Society, 428, 1263

45. Broekhoven-Fiene, H., Matthews, B., Kennedy, G., Booth, M., Sibthorpe, B., Lawler, S., Kavelaars, J., Wyatt, M., Qi, C., Koning, A., Su, K., Rieke, G., Wilner, J., & Greaves, J. 2013, *The debris disk around Doradus resolved with Herschel,* Astrophysical Journal, 762, 52

44. Lestrade, J.-F., Matthews, B., Sibthorpe, B., Kennedy, G., Wyatt, M., Bryden, G., Greaves, J., Thilliez, E., Moro-Martín, A., Booth, M., Dent, W., Duchêne, G., Harvey, P., Horner, J., Kalas, P., Kavelaars, J., Phillips, N., Rodriguez, D., Su, K., & Wilner, D. 2013, *A DEBRIS Disk Around the Planet Hosting M-star GJ 581 Spatially Resolved with Herschel*, Astronomy & Astrophysics, 548, 86

43. Kennedy, G., Wyatt, M., Sibthorpe, B., Phillips, N., Matthews B., & Greaves, J. 2012, *Coplanar circumbinary debris discs*, Monthly Notices of the Royal Astronomical Society, 426, 2115–2128

42. Wyatt, M., Kennedy, G., Sibthorpe, B., Moro-Martín, A., Lestrade, J.-F., Ivison, R., Matthews, B., Udry, S., Greaves, J., Kalas, P., Lawler, S., Su, K., Rieke, G., Booth, M., Bryden, G., Horner, J., Kavelaars, J., & Wilner, D. 2012, *Herschel imaging of 61 Vir: implications for the prevalence of debris in low-mass planetary systems*, Monthly Notices of the Royal Astronomical Society, 424, 1206–1223

41. Vaillancourt, J., & Matthews, B. 2012, *Submillimeter Polarization of Galactic Clouds: A Comparison of 350 μm and 850 μm Data*, Astrophysical Journal Supplement Series, 201, 13

40. Duarte-Cabral, A., Chrysostomou, A., Peretto, N., Fuller, G., Matthews, B., Schieven, G., & Davis, G. 2012, *The molecular gas content of the Pipe Nebula. I. Direct evidence of outflow-generated turbulence in B59*, Astronomy & Astrophysics, 543, A140

39. Greaves, J., Hales, A., Mason, B., & Matthews, B. 2012, *Debris discs at centimetre wavelengths: planetesimal populations in young extrasolar Kuiper Belts*, Monthly Notices of the Royal Astronomical Society, 423, 70–74

38. Buckle, J., Davis, C., Di Francesco, J., and 31 co-authors. 2012, *The JCMT Legacy Survey of the Gould Belt: mapping 13CO and C18O in Orion A*, Monthly Notices of the Royal Astronomical Society, 422, 521–541

37. Kennedy, G., Wyatt, M., Sibthorpe, B., Duchêne, G., Kalas, P., Matthews, B., Greaves, J., Su, K., Fitzgerald, M. 2012, *99 Herculis: host to a circumbinary polar-ring debris disc*, Monthly Notices of the Royal Astronomical Society, 421, 2264–2276

36. Churcher, L., Wyatt, M., Duchêne, G., Sibthorpe, B., Kennedy, G., Matthews, B., Kalas, P., Greaves, J., Su, K., & Rieke, G. 2011, *Multiwavelength modeling of the Leo disc: one, two or three planetesimal populations?*, Monthly Notices of the Royal Astronomical Society, 417, 1715–1734

35. Davidson, J., Novak, G., Matthews, T., Matthews, B., Goldsmith, P., Chapman, N., Volgeneau, N., Vaillancourt, J. & Attard, M. 2011, *Magnetic Field Structure around Low-Mass Class 0 Protostars: B335, L1527 and IC348-SMM2*, The Astrophysical Journal, 732, 97

34. Graves, S. et al. 2010, *The JCMT Legacy Survey of the Gould Belt: a first look at Serpens with HARP*, MNRAS 409, 1412–1428

33. Matthews, B.C., et al. 2010, *Resolving debris discs in the far-infrared: early highlights from the DEBRIS survey*, Astronomy & Astrophysics, 518, L135

32. Vandenbussche, B., et al. 2010, *The Beta Pictoris disk imaged by Herschel PACS and SPIRE*, A&A, 518, L133

31. Sibthorpe, B., et al. 2010, *The Vega Debris Disc: A View from Herschel*, A&A, 518, L130

30. Davis, C.J. et al. 2010, *The JCMT Legacy Survey of the Gould Belt: a first look at Taurus with HARP*, MNRAS 405, 759–776

29. Poidevin, F., Bastien, P., & Matthews, B. 2010, *Magnetic Field Structures and Turbulent Components in the Star-forming Molecular Clouds OMC-2 and OMC-3*, ApJ, 716, 893–906

28. Phillips, N., Greaves, J., Dent, W.R.F., Matthews, B.C., Holland, W.S., Wyatt, M.C., & Sibthorpe, B. 2010, *Target selection for the SUNS and DEBRIS surveys for debris disks in the solar neighbourhood*, MNRAS, 403, 1089–1101

27. Buckle, J., et al. 2009, *The JCMT Legacy Survey of the Gould Belt: a first look at Orion B with HARP*, MNRAS, 401, 204–222

26. Pon, A., Plume, R., Friesen, R., Di Francesco, J., Matthews, B., & Bergin, E.A. 2009, *Submillimeter Observations of the Quiescent Core - Ophiuchus A-N6*, ApJ, 698, 1914–1923

25. Matthews, B.C., McPhee, C., Fissel, L., & Curran, R. 2009, *The Legacy of SCUPOL: 850 μm Imaging Polarimetry from 1998-2005*, ApJS, 182, 143–204

24. Dunne, L., Maddox, S.J., Ivison, R.J., Rudnick, L.R., DeLaney, T.M., Matthews, B.C., Gomez, H.L., & Eales, S.A. 2009, *Cassiopeia A: dust factory revealed via submillimetre polarimetry*, MNRAS, 394, 1307–1316

23. Reid, M.A., & Matthews, B.C. 2008, *Deconstructing the High Mass Star-Forming Region IRAS 23033+5951*, ApJ, 675, 1343–1351

22. Matthews, B.C., Bergin, E.A., Crapsi, A., Hogerheijde, M., Jørgensen, J., Marrone, D., & Rao, R. 2008, *The Class 0 source Barnard 1c. Most recent results*, Ap&SS, 313, 65

21. Gutermuth, R., Bourke, T., Allen, L., Myers, P., Megeath, T., Matthews, B., Jorgensen, J., Di Francesco, J., Ward-Thompson, D., Huard, T., Brooke, T., Dunham, M., Harvey, P., & Chapman, N. 2008, *The Spitzer Gould Belt Survey of Large Nearby Interstellar Clouds: Discovery of a Dense Embedded Cluster in the Serpens-Aquila Rift*, ApJ Letters, 673, 151–154

20. Matthews, B., Graham, J., Perrin, M., & Kalas, P. 2007, T*he Molecular Gas Environment around Two Herbig Ae/Be Stars: Resolving the Outflows of LkH 198 and LkH 225S*, ApJ, 671, 483–496

19. Ward-Thompson, D. et al. 2007, *The James Clerk Maxwell Telescope Legacy Survey of Nearby Star-forming Regions in the Gould Belt*, PASP, 119, 855–870

18. Matthews, B., Greaves, J., Holland, W., Wyatt, M. and 26 co-authors. 2007, *An Unbiased Survey of 500 Nearby Stars for Debris Disks: A JCMT Legacy Survey*, PASP, 119, 842–854

17. Matthews, B., Kalas, P., & Wyatt, M. 2007, *Mass and Temperature of the TWA 7 Debris Disk*, ApJ, 663, 1103–1109

16. Graham, J., Kalas, P., & Matthews, B. 2007, *The Signature of Primordial Grain Growth in the Polarized Light of the AU Mic Debris Disk*, ApJ, 654, 595–605

15. Matthews, B., Hogerheijde, M., & Bergin, E. 2006, *A Molecular Line Study of the Recently Identified Class 0 Source Barnard 1-c*, ApJ, 652, 1374–1389

14. Cortes, P., Crutcher, R.M., & Matthews, B. 2006, *Interferometric Mapping of Magnetic Fields: NGC 2071 IR*, ApJ, 650, 246–251

13. Matthews, B., Lai, S.-P., Crutcher, R.M., & Wilson, C.D., 2005, *Multi-scale Magnetic Fields in Star-Forming Regions: Interferometric Polarimetry of the MMS6 Core of OMC-3*, 2005, ApJ, 626, 959–965

12. Poidevin, F., Bastien, P., Fiege, J.D., & Matthews, B.C. 2005, *Who's in the Driver's Seat: Magnetic Fields or Turbulence?*, JRASC, 99, 143

11. Bastien, P., Bissonnette, E., Ade, P., Pisano, G., Savini, G., Jenness, T., Johnstone, D., & Matthews, B. 2005, *POL-2: A Polarimeter for SCUBA-2*, JRASC, 99, 133

10. Liu, M., Matthews, B., Williams, J., & Kalas, P., 2004, *A Search of Nearby Young Stars for Cold Dust: Discovery of Debris Disks around Two Low-Mass Stars*, ApJ, 608, 526–532

9. Kalas, P., Liu, M., & Matthews, B. 2004, *Discovery of a large planetesimal disk around a Beta Pic sister star*, Science, 303, 1990–1992

8. Matthews, B., & Wilson, C. 2002, *Magnetic Fields in Star-Forming Molecular Clouds V. Submillimeter Polarization of the Barnard 1 Dark Cloud*, ApJ, 574, 822–833

7. Matthews, B., & Wilson, C. 2002, *Magnetic Fields in Star-Forming Molecular Clouds IV. Polarimetry of the Filamentary NGC 2068 Cloud in Orion B*, ApJ, 571, 356–365

6. Matthews, B., Fiege, J., & Moriarty-Schieven, G. 2002, *Magnetic Fields in Star-Forming Molecular Clouds III. Submillimeter Polarization of Intermediate Mass Star-Forming Cores & Filaments in Orion B*, ApJ, 569, 304–321

5. Matthews, B., Wilson, C., & Fiege, J. 2001, *Magnetic Fields in Star-Forming Molecular Clouds II. Depolarization Across OMC-3 in Orion A*, ApJ, 562, 400–423

4. Matthews, B., & Wilson, C. 2000, *Magnetic Field Structures in Star-Forming Molecular Clouds I. The First Polarimetry of OMC-3 in Orion A*, ApJ, 531, 868–872

3. Brown, D.W., Chandler, C.J., Carlstrom, J.E., Hills, R.E., Lay, O.P., Matthews, B.C., Richer, J.S., & Wilson, C.D., 2000, *A Submillimetre Survey for Protostellar Accretion Disks using the JCMT-CSO Interferometer*, MNRAS, 319, 154–162

2. Matthews, B. C., Wallace, B. J., & Taylor, A. R. 1998, *G55.0+0.3: A Highly Evolved Supernova Remnant*, ApJ, 493, 312–325

1. Wilson, C. D., & Matthews, B. C. 1995, T*he Star Formation Histories and Efficiencies of Two Giant HII Regions in M33*, ApJ, 455, 125–1329

Conference Proceedings:

20. Matthews, B.C., Kennedy, G., Sibthorpe, B., Booth, M., Broekhoven-Fiene, H., Wyatt, M.C., Macintosh, B., Marois, C., 2014, Herschel Observations of the HR 8799 Disk, in the proceedings of the "IAU Symposium 299: Exploring the Formation and Evolution of Planetary Systems", IAUS, 299, 348

19. Matthews, B., & Vaillancourt, J. 2011, *Recent developments in submillimeter polarimetry archives, the polarization spectrum and the interpretation of polarization data,* in the proceedings of "Stellar Polarimetry: From Birth to Death", AIP Conf. Proc. 1429, 11–20

18. Vaillancourt, J., Matthews, B. 2011, *Hertz and SCUBA: Submillimeter Polarimetry of Molecular Clouds from Mauna Kea,* in the proceedings of "Astronomical Polarimetry 2008: Science from Small to Large Telescopes", ASP Conference Series, 449, 163–164

17. Poidevin, F., Bastien, P., Jones, T., & Matthews, B. 2011, *Multi-Scale Analysis of Magnetic Fields in and around OMC-1, OMC-2 and OMC-3,* in the proceedings of "Astronomical Polarimetry 2008: Science from Small to Large Telescopes", ASP Conference Series, 449, 105–109

16. Bastien, P., and 17 co-authors, including Matthews, B. 2011, *POL-2: the SCUBA-2 Polarimeter,* in the proceedings of "Astronomical Polarimetry 2008: Science from Small to Large Telescopes", ASP Conference Series, 449, 68–72

15. Matthews, B.C., et al. 2008, *The Class 0 Source Barnard 1c: Most Recent Results,* in Proceedings from the conference "Science with ALMA: A new era of astrophysics", Ap&SS, 313, 65

14. Curran, R., Chrysostomou, A., & Matthews, B. 2007, *Submillimetre Polarimetric Observations of Magnetic Fields in Star-forming Regions*, in Proceedings from the IAU Symposium 243 "Star-Disk Interaction in Young Stars", 243, 63

13. Reid, M.A., & Matthews, B.C., 2006, *Dissecting a Site of Massive Star Formation,* in Proceedings from IAU Symposium 237 "Triggered Star Formation in a Turbulent ISM", IAUS, 237, 155

12. Matthews, B.C., Hogerheijde, M., & Bergin, E. 2006, *A Molecular Line Study of the Recently Discovered Class 0 source Barnard 1-c,* in Proceedings from the conference "Revealing the Molecular Universe – One Telescope Is Never Enough" eds. D. Backer, J. Turner & J. Moran, ASP Conf. Series, 356, 266

11. Matthews, B.C., Hogerheijde, M., & Bergin, E.A., 2005, *A Molecular Line Study of the Recently Discovered Class 0 source Barnard 1c*, in Proceedings from IAU Symposium 231 "Astrochemistry Throughout the Universe: Recent Successes and Current Challenges", IAUS, 235, 226

10. Matthews, B.C., 2005, *Polarimetry and Star Formation in the Submillimeter*, review in Proceedings from "Astronomical Polarimetry: Current Status and Future Directions", eds. A. Adamson, C. Aspin, C.J. Davis, & T. Fujiyoshi, ASP Conf. Series, 343, 99

9. Poidevin, F., Bastien, P., Matthews, B., & Fiege, J., 2005, *A Multi-scale Analysis of Magnetic Fields in Filamentary Molecular Clouds and Their Environments*, in Proceedings from "Astronomical Polarimetry: Current Status and Future Directions", eds. A. Adamson, C. Aspin, C.J. Davis, & T. Fujiyoshi, ASP Conf. Series, 343, 205

8. Fich, M., Di Francesco, J., Fiege, J., Friesen, R., Holland, W., Joncas, G., Johnstone, D., Kirk, H., Matthews, B., Matthews, H., Mitchell, G., Plume, R., and Wilson, C., 2005, *Surveys of the Galaxy with the JCMT,* in The Proceedings of "The Dusty and Molecular Universe. A Prelude to Herschel and ALMA", a meeting held in Paris, France 27-29 October, 2004, ed. A. Wilson, ESA SP-577, 365–366

7. Matthews, B.C., Lai, S.-P., Crutcher, R.M., & Wilson, C.D. 2004, *Is the Magnetic Field Preserved During Core Formation?,* in Proceedings from IAU Symposium 221 "High Resolution Star Formation" eds. M. Burton, T. Bourke & R. Jayawardhana, IAUS, 221, 97

6. Matthews, B.C., Chuss, D., Dotson, J., Dowell, C.D., Johnstone, D., Hildebrand, R., & Vaillancourt, J.E. 2002, *New Insights into Dust Grain Physics: The Polarization Spectrum of the OMC-1 Core,* in Proceedings of the conference "Chemistry as a Diagnostic of Star Formation" eds. C.L. Curry & M. Fich, NRC Press, 72

5. Matthews, B.C., Wilson, C.D., & Fiege, J.D. 2001, *Magnetic Fields in Star-Forming Clouds: How Can FIRST Contribute?,* in Proceedings of the ESLAB Symposium "The Promise of the Herschel Space Observatory" eds. G.L. Pilbratt, J. Cernicharo, A.M. Heras, T. Prusti, & R.A. Harris, ESA-SP 460, 463

4. Matthews, B.C., & Wilson, C.D. 2000, *Magnetic Fields in Star-Forming Molecular Clouds: JCMT Polarimetry of OMC-3 in Orion A,* in Proceedings of the 33rd ESLAB Symposium on "Star Formation from the Small to the Large Scale", eds. F. Favata, A. Kaas & A. Wilson, ESA-SP 445, 473

3. Matthews, B.C., & Wilson, C.D. 1999, *Magnetic Fields in Star-Forming Molecular Clouds: JCMT Polarimetry of OMC-3 in Orion A,* in online proceedings of the SOFIA-Star Formation Workshop.

2. Matthews, B.C., & Wilson, C.D. 1999, *Protostars in the Molecular ISM: Probing their Structure with SCUBA on the JCMT,* in "New Perspectives on the Interstellar Medium", eds. A.R. Taylor, T.L. Landecker, & G. Joncas, ASP Conference Series, 168, 252.

1. Matthews, B.C., Clarke, T.E., & Allen, M.L. 1999, *The Final Session - 10 Questions, 10 Responses,* in "New Perspectives on the Interstellar Medium", eds. A.R. Taylor, T.L. Landecker, & G. Joncas, ASP Conference Series, 168, 467

Technical Papers, White Papers and Funding Proposal Contributions:

2013	co-author	"Roadmap for Canadian Submillimetre Astronomy"
2012	contributor	ALMA Cycle 1 Primer
2011	contributor	ALMA Cycle 0 Primer
2010	author	"Circumstellar disks" white paper LRP
2010	contributor	"Submillimetre Universe" white paper LRP
2009	contributor	"The Science Case for Building a Band 1 Receiver for ALMA"
2005	author	"SCUBA-2 Polarimeter: Science Requirements Document" (requirement for delta PDR, passed)
2004	author	"SCUBA-2 Polarimeter: The Science Case" (funded)
2004	contributor	"Galactic Life Cycle Observatory" Development Funding Proposal to NASA (not funded)
2003	author	"Polarization with the BIMA Interferometer: Observations to Data Reduction" BIMA Memo Series # 100.
2003	contributor	"Canadian Large Adaptive Reflector" Funding Proposal (not funded)
2002	contributor	"SCUBA-2, A Submillimetre Camera for Astronomy" proposal submitted to the Canadian Foundation for Innovation (funded)

Invited Reviews:

2014 May	*Herschel Observations of Debris Disks,* "SPICA Science Workshop", Leiden, The Netherlands	
2013 Jul	*Debris Disks Observations and Theory: incidence, structure and evolution*, lead author, for Protostars & Planets VI, Heidelberg, Germany	chapter accepted
2012 Jun	*Herschel Surveys of Debris Disks: Incidences, Outcomes and Surprises* at "Origins of Stars and their Planetary Systems" conference, McMaster University, Hamilton, ON	keynote talk
2010 Sep	*Debris Disks: the first 30 years. Where will Herschel take us?* at the meeting "Herschel and the Formation of Stars and Planetary Systems", Gothenborg, Sweden	
2008 Jul	*SCUBA-2 prospects for dust linear polarization measurements*, at the meeting "The Cosmic Agitator - Magnetic Fields in the Galaxy", University of Kentucky, KY	

2004 Mar	*Polarimetry and Star Formation in the Submillimeter*, at "Astronomical Polarimetry" Conference, Kona, HI	
2003 Oct	*Toward A New Paradigm for Star Formation* "A Festival for Frank Bash" meeting, University of Texas at Austin	

Invited Talks:

declined invites to Herschel meeting in Grenoble (March 2012, leave) and Lorentz meeting (June 2012, conflict)

2013 May	*Herschel Observations of Debris Disks,* at the annual meeting of the Canadian Astronomical Society, UBC, Vancouver, Canada	conference
2012 Sep	*Herschel Surveys of Debris Disks: Incidences, Outcomes and Surprises*, NASA Ames, Moffett Field, CA	colloquium
2011 Nov	*Resolving nearby debris disks with Herschel: a window into nearby Solar Systems*, Harvard-Smithsonian Center for Astrophysics, Cambridge, MA	colloquium
2011 Oct	*Herschel's view of debris disks* at the "Signposts of Planets" conference, NASA Goddard Space Flight Center, Baltimore, MD	conference
2011 Jan	Resolving nearby debris disks with Herschel: a window into nearby Solar Systems, UBC, Vancouver, BC	colloquium
2010 Oct	Resolving nearby debris disks with Herschel: a window into nearby Solar Systems, UCLA, Los Angeles, CA	colloquium
2010 May	The First Days of DEBRIS: Exciting Results and Unexpected (Good) Surprises "Herschel First Results" conference, Noordwijk, The Netherlands, delivered by Jane Greaves	conference
2008 Jul	*The DEBRIS Project: Searching for Kuiper Belts around the Nearest Stars with Herschel*, "Advances in Far-IR Astronomy in Space" Special Session, 37th COSPAR Scientific Assembly, Montreal, CA	conference
2008 Apr	*Nearby Circumstellar Disks and the Search for Extrasolar Planets: Multiwavelength Surveys and Interferometric Facilities,* Northwestern University, IL	colloquium
2007 Jul	*A New Era in the Study of the Formation of Stars and Evolution of Disks: From individual case studies to large-scale surveys*, Herzberg Institute of Astrophysics, Victoria, BC	seminar
2007 Jun	*Synergy of ALMA with Herschel*, at the meeting "Transformational Science with ALMA: Through Disks to Stars and Planets", Charlottesville, VA	conference

2007 May	*Toward a Statistical Understanding of Star Formation: the Origin and Evolution of Stars and Disks,* NRAO, Socorro, NM	colloquium
2007 Feb	*Debris Disks around Low-mass Stars: Why our nearest neighbours may host the most interesting disks,* UBC, Vancouver, BC	colloquium
2007 Feb	*Debris Disks Around Low Mass Stars: Frequency, Grain Growth and the Search for Planets,* NRAO, Charlottesville, VA	colloquium
2007 Jan	*Debris Disks around Low-mass Stars: Environments, planet formation and grain growth*, McMaster University, Hamilton, ON	seminar
2007Jan	*Debris Disks around Low-mass Stars: Environments, planet formation and grain growth*, University of Western Ontario, London, ON	colloquium
2006 Jul	*On the Origins of Stars, Disks and Planets: From Individual Case Studies to Unbiased Surveys*, St. Andrews, Scotland	job talk
2005 Sep	*Barnard 1-c: Understanding this Very Young Protostellar Core in Perseus*, UC Berkeley	seminar
2005 Feb	*Star Formation in the Era of ALMA: Polarimetry, Spectroscopy and Continuum Imaging,* Cornell University, NY	colloquium
2005 Jan	*The Vega Phenomenon down to the Substellar Limit: Riding on the AU Microscopii Bandwagon,* Leiden Observatory	seminar
2004 Oct	*Riding the AU Microscopii Bandwagon* JAC Seminar Series, Joint Astronomy Centre, HI	seminar
2004 Aug	*Magnetic Fields and Star Formation: Is Polarized Dust Emission the "Smoking Gun"?* University of Calgary, Calgary, AB	job talk
2004 Apr	*Magnetic Fields and Star Formation,* University of Hertfordshire Hatfield, UK (faculty job offered and declined)	job talk
2003 Nov	*Magnetic Fields and Other Secrets of Interstellar Dust*, California State University, Sacramento, CA	colloquium
2003 Sep	*Magnetic Fields and Other Secrets of Interstellar Dust,* Queen's University, Kingston, ON	job talk
2003 Jun	*Polarization Studies in Interstellar Clouds* URSI/IEEE/APS Joint Meeting, "New Millimeter Arrays" session, Columbus, OH	conference
2003 Jan	*Is Dust Polarimetry the "Smoking Gun" in Understanding Magnetic Fields in Star-Forming Molecular Clouds?* U. of Michigan, Ann Arbor, MI	job talk

2002 Nov	*Magnetic Fields in Star-Forming Molecular Clouds: Ongoing Results from SCUBA Polarimetry,* Institute for Astronomy, University of Hawaii, Honolulu, HI	seminar
2001 Nov	*Magnetic Fields in Star-Forming Molecular Clouds: Some Results from SCUBA Polarimetry at 850* **μ***m*, UC Berkeley	seminar
2001 Nov	*Dust Polarimetry in Star-Forming Clouds: Is it the Smoking Gun in Understanding Magnetic Field Geometries?,* NASA Ames Center for Star Formation Seminar Series, Moffett Field, CA	seminar
2000 Nov	*Magnetic Field Structures in Filaments and Dark Clouds* University of Western Ontario, London, ON	colloquium
2000 Aug	*What's Holding Up Gravity? Magnetic Field Structures in Molecular Filaments?,* Joint Astronomy Centre Lecture Series, Hilo, HI	seminar
2000 Feb	*Polarized Emission from Star-Forming Regions* Canadian Institute for Theoretical Astrophysics' Star Formation Seminar Series, University of Toronto, Toronto, ON	seminar

Contributed Talks

2013 May	*The Herschel DEBRIS Survey* Canadian Astronomical Society Annual Meeting, Vancouver, BC	conference
2011 May	*The Herschel DEBRIS Survey* Canadian Astronomical Society Annual Meeting, London, ON	conference
2008 Oct	*Grain Growth (and destruction) in protoplanetary (and debris) disks*, Band 1 Workshop at HIA, Victoria, Canada	workshop
2008 Mar	*Debris Disks: An Open Time Key Project on the Herschel Space Observatory*, presented at HIA, Victoria, BC	seminar
2008 Mar	*DEBRIS: The Other Disk Survey*, presented at working meeting of the DUNES survey team, Onsala, Sweden	group meeting
2008 Feb	*Debris Disks in the Far-IR: Detection and Characterization of Kuiper Belt Analogues*, presentation to the FIR DWG face-to-face meeting in Waterloo, ON via videolink	group meeting
2007 Sep	*JDUG: an Update*, presentation via telecon at the "JCMT Legacy Survey Gould Belt Survey face-to-face meeting" at University College, London	group meeting
2007 Jun	*Tricks of Resolution and Dynamics: A Disk-like Object that Isn't*, at the meeting "Transformational Science with ALMA: Through Disks to Stars and Planets", Charlottesville, VA (Matthews, B.C., & Reid, M.A.)	conference

2007 Jun	*First Results from the Spitzer Gould Belt Legacy Survey*, at the annual meeting of the Canadian Astronomical Society, Kingston, ON, Canada (Matthews, B.C., & the Spitzer Gould Belt Legacy Survey Team)	conference
2007 Nov	*The Class 0 Source Barnard 1c: Most Recent Results...*, at the meeting "Science with ALMA: A new era of astrophysics", Madrid, Spain (Matthews, B.C., Crapsi, A., Hogerheijde, M., Jørgensen, J., & Bergin, E., Rao, R., & Marrone, D.)	conference
2006 Jun	*Women in Canadian Astronomy: 2000-2005*, at a special session during the summer meeting of the American Astronomical Society, Calgary, AB (Matthews, B.C., & Reid, M.A.)	conference
2006 Jun	*New SMA and JCMT results on the remarkable class 0 source Barnard 1c*, at the annual meeting of the Canadian Astronomical Society, Calgary, AB (Matthews, B.C, Crapsi, A., Hogerheijde, M., Jørgensen, J., & Bergin, E.)	conference
2006 May	*The JCMT Debris Disk Legacy Survey: The Calm Before The Storm*, at "From Proto-stellar Disks to Planetary Systems", London, ON, Canada	conference
2006 May	*New SMA and JCMT results on the remarkable class 0 source Barnard 1c*, at "Complex Molecules in Space: Present status and prospects with ALMA", Fuglsøcentret, Denmark (Matthews, B.C., Crapsi, A., Hogerheijde, M., Jørgensen, J., & Bergin, E.)	conference
2003 Jul	*Is the Magnetic Field Preserved During Core Formation?*, at IAU Symposium 221 "High Resolution Star Formation", Sydney, Australia (Matthews, B.C., Lai, S.-P., Crutcher, R.M., & Wilson, C.D.,)	conference
2002 Aug	*New Insights into Dust grain Physics: The Polarization Spectrum of the OMC-1 Core*, at "Astrochemistry as a Diagnostic of Star Formation", Waterloo, ON (Matthews, B.C., Chuss, D., Dotson, J., Dowell, C.D., Hildebrand, R., Johnstone, D., & Vaillancourt, J.)	conference
2002 May	*The Polarization Spectrum of OMC-1 and its Importance in Understanding Grain Physics*, at the Annual Meeting of the Canadian Astronomical Society, Penticton, B.C., Canada (Matthews, B.C., et al.)	conference
2001 May	*Star-Forming Molecular Clouds: Modeling 3-D Magnetic Fields from 2-D Polarimetry*, at the Annual Meeting of the Canadian Astronomical Society, McMaster University, Hamilton, ON, Canada	conference
2001 Jan	*Magnetic Fields in Star-Forming Molecular Clouds*, a dissertation talk, presented at the Annual Meeting of the American Astronomical Society, San Diego, CA, U.S.A. (Matthews, B.C., & Wilson, C.D.)	conference

2000 May	*Sub-mm Polarimetry of Star-forming Regions in Orion B,* at the Annual Meeting of the Canadian Astronomical Society, University of British Columbia, Vancouver, BC, Canada (Moriarty-Schieven, G.H., Matthews, B.C., & Fiege, J.D., presented by B. Matthews)	conference
1999 Jun	*Magnetic Field Structure in Orion A's OMC-3 Filament* at the Annual Meeting of the Canadian Astronomical Society, July 27-30, 1999, St. Mary's University, Halifax, NS (Matthews, B.C., & Wilson, C.D.)	conference

Contributed Poster Papers:

2011 Jan	Butner, Matthews & The DEBRIS Team, *Herschel's DEBRIS – An Update on the Search for Kuiper Belts Around the Nearest Stars*, poster at the AAS, Seattle, WA
2011 Jan	Broekhoven-Fiene, Matthews & Qi, *Resolved Debris Disks around F085 using Herschel",* poster at "Extending the Limits of Astrophysics Spectroscopy",Victoria, BC
2010 May	Broekhoven-Fiene, Matthews, Kavelaars & The DEBRIS Team, *The Herschel Survey: Detecting debris disks around nearby main-sequence stars*, poster at the annual meeting of the Canadian Astronomical Society, St. Mary's University, Halifax NS.
2009 Jan	Vaillancourt, J.E., & Matthews,B.C., 2009, *Submillimeter Polarimetry of Molecular Clouds from Mauna Kea,* at the AAS
2009 Jan	Butner, H.M., McCauley, P., Simonson, D., Matthews, B., Greaves, J.S., Duchene, G., Graham, J.R., Harvey, P.M., Kalas, P., Wilner, D.J.,& Zuckerman, B., 2009, *Stellar Ages Of The Debris Sample Stars*, at the AAS
2008 May	Matthews, B.C., & *The Herschel DEBRIS Team, DEBRIS: An Unbiased Search for Kuiper Belt Analogues around Nearby Stars with Herschel*, at the annual meeting of the Canadian Astronomical Society, Victoria, BC, Canada
2008 May	Matthews, B.C., Curran, R., Fissel, L., & McPhee, C., *The Legacy of SCUPOL: A Catalogue of 850 micron Imaging Polarimetry from 1997-2005*, at the annual meeting of the Canadian Astronomical Society, Victoria, BC, Canada
2007 Jun	Matthews, B.C., & Reid, M.A., *Deconstructing the High-mass Star-forming Region IRAS 23033+5951*, at the annual meeting of the Canadian Astronomical Society, Kingston, ON, Canada
2007 Nov	Matthews, B.C., Di Francesco, J., & Fissel, L. *Results of a 200-hour BIMA Array Key Project to Study Gas Dynamics in the Ophiuchi Cores*, at the meeting "Science with ALMA: A new era of astrophysics", Madrid, Spain
2006 Jun	Matthews, B.C., & Kalas, P. *Debris Disks around M Dwarfs: TWA7 and GJ 182,* at the annual meeting of the Canadian Astronomical Society, Calgary, Canada

2005 Oct Matthews, B., Bergin, E., Hogerheijde, M., & Jørgensen, J. *A Molecular Line Study of the Powerful Outlfow Source Barnard 1-c*, at the conference "Protostars & Planets V", Waikoloa, HI

2005 Oct Matthews, B., Graham, J., Kalas, P., & Perrin, M. *Extended CO Emission in the Environs of the HAeBe Stars LkH 198 and LkH 225S*, at the conference "Protostars & Planets V", Waikoloa, HI

2005 Oct Matthews, B., & Kalas, P. *Debris Disks around M Dwarfs: TWA 7, AU Mic & GJ 182*, at the conference "Protostars & Planets V", Waikoloa, HI

2005 Oct Holland, W., Matthews, B., Greaves, J. et al. *Legacy Surveys with the JCMT: The SCUBA-2 Debris Disk Survey*, at the conference "Protostars & Planets V", Waikoloa, HI

2005 Oct Johnstone, D., Di Francesco, J., Matthews, B., Ward-Thompson, D., Nutter, D., Hatchell, J., Hogerheijde, M., Greaves, J, Buckle, J., & Richer, J. *Legacy Surveys with the JCMT: The SCUBA-2 Local Star Formation Survey*, at the conference "Protostars & Planets V", Waikoloa, HI]

2005 Sep Matthews, B., Hogerheijde, M., & Bergin, E. *A Molecular Line Study of the Recently Discovered Class 0 source Barnard 1-c*, at the conference "IAU Symposium 231: Astrochemistry Throughout the Universe – Recent Successes and Current Challenges", Asilomar, CA, USA

2005 Sep Matthews, B., Hogerheijde, M., & Bergin, E. *A Molecular Line Study of the Recently Discovered Class 0 source Barnard 1-c*, at the conference "Revealing the Molecular Universe – One Telescope Is Never Enough", Berkeley, CA

2005 Jun Matthews, B., Hogerheijde, M., & Bergin, E. *Dynamics of a Newly Discovered Young Stellar Object with a Prominent Jet*, at the conference "Submillimeter Astronomy in the Era of the SMA", Cambridge, MA

2004 Oct Fich, M., Di Francesco, J., Fiege, J., Friesen, R., Holland, W., Joncas, G., Johnstone, D., Kirk, H., Matthews, B., Matthews, H., Mitchell, G., Plume, R., and Wilson, C., *Surveys of the Galaxy with the JCMT,* in The Proceedings of The Dusty and Molecular Universe. A Prelude to Herschel and ALMA", a meeting held in Paris, France, Ed. A. Wilson, ESA SP-577, 365-366 (2005)

2004 Jan Fitzgerald, M., Graham, J., Kalas, P., & Matthews, B. *High resolution near-infrared imaging of the debris disk around AU Mic*, at the American Astronomical Society Annual Meeting, 205, #29.07

2003 Jul Matthews, B., Fiege, J., Greaves, J., & Moriarty-Schieven, G. *Resolving Magnetic Fields Within Molecular Outflow Lobes with the JCMT*, at the IAU Symposium 221 "Star Formation at High Angular Resolution", Sydney, Australia

2003 Jul Matthews, B.C., Lai, S.-P., Crutcher, R.M., & Wilson, C.D., *Is the Magnetic Field Preserved During Core Formation?*, at IAU Symposium 221 "Star Formation at High Angular Resolution", Sydney, Australia

2003 Jun Matthews, B., & Reid, M. *A Ten-Year Survey of Women in Canadian Astronomy*, at the "Women in Astronomy" conference, Pasadena, CA

2003 May Matthews, B.C., Lai, S.-P., Crutcher, R.M., & Wilson, C.D., *Is the Magnetic Field Preserved During Core Formation?*, at the Canadian Astronomical Society Annual Meeting, Waterloo, ON

2003 May Matthews, B., Fiege, J., Greaves, J., & Moriarty-Schieven, G. *Resolving Magnetic Fields Within Molecular Outflow Lobes with the JCMT*, at the Canadian Astronomical Society Annual Meeting, Waterloo, ON

2003 Apr Matthews, B., Fiege, J., Greaves, J. & Moriarty-Schieven, G. *Resolving Magnetic Fields Within Molecular Outflow Lobes with the JCMT,* at the conference "Magnetic Fields in Star Formation", Madrid, Spain

2003 Apr Matthews, B. *Is the Magnetic Field Geometry Preserved During Core Fragmentation?*, at the conference "Magnetic Fields in Star Formation", Madrid, Spain

2002 Jun Matthews, B. *Dust Polarimetry: Magnetic Fields and Grain Physics,* at the 2002 Star Formation Workshop, Taroko, Taiwan

2002 Jan Matthews, B.C., Fiege, J.D., Greaves, J.S., & Wilson, C.D. *Polarimetry of Star-Forming Cores on Multiple Spatial Scales* at the Annual Meeting of American Astronomical Society, Washington, DC

2001 Dec Matthews, B.C., Wilson, C.D., & Fiege, J.D. *Magnetic Fields in Star-Forming Clouds: How Can FIRST Contribute?* at the ESLAB Symposium "The Promise of the Herschel Space Observatory", Toledo, Spain

2000 May Matthews, B.C. & Wilson, C.D. *Star Formation and Magnetic Field Structure along the OMC-3 Ridge in Orion A,* at the Annual Meeting of the Canadian Astronomical Society, Vancouver, BC

1999 Nov Matthews, B.C. & Wilson, C.D. *Magnetic Fields in Star-Forming Molecular Clouds: A Continuing Study of OMC-3 in Orion A,* at the conference "Star Formation from Small to Large Scales", Noordwijk, Netherlands

1999 Jul Matthews, B.C. & Wilson, C.D. *Magnetic Fields in Star-Forming Molecular Clouds: JCMT Polarimetry of OMC-3 in Orion A,* at SOFIA Star Formation Workshop, Santa Cruz, CA

1999 May Matthews, B.C. & Wilson, C.D. *A Fantastic Polarization Map of OMC-3 in Orion A* ,at the Symposium "Gravitational Collapse Leading to Star Formation", Toronto, ON

1998 Aug Matthews, B.C. & Wilson, C.D. *Protostars in the Molecular ISM: Probing their Structure with SCUBA at the JCMT,* at the meeting "New Perspectives on the Interstellar Medium", Naramata, BC

1998 Jul Matthews, B.C. & Wilson, C.D. *Probing Protostellar Envelopes: RNO 43 and Other Class 0 Sources,* at "Protostars & Planets IV" Conference, 5-12 July, 1998, Santa Barbara, CA

1998 May Matthews, B.C. & Wilson, C.D. *Mapping Protostellar Sources: : The First Images from SCUBA,* at the Annual Meeting of the Canadian Astronomical Society, Laval, QB

1997 Jun Matthews, B.C. & Wilson, C.D. *Detection of the Spectacular Outflow Source NGC 2264G at Millimeter Wavelengths,* at the Annual Meeting of the Canadian Astronomical Society, Edmonton, AB

1997 Jan Matthews, B.C.,Wallace, B.J., & Taylor, A.R. *Casper–A Spooky Supernova Remnant/Pulsar Association?* at the Annual Meeting of the American Astronomical Society, Toronto, ON

1996 Jun Matthews, B.C.,Wallace, B.J., & Taylor, A.R. *Casper–A Spooky Supernova Remnant/Pulsar Association?* at the Annual Meeting of the Canadian Astronomical Society, Kingston, ON

Teaching:

Courses:

2013 Jan: ASTR 511 "Instrumentation": 2 lectures on "Understanding Interferometry and ALMA"
2010 May-Aug: Directed Learning Course "Star and Planet Formation"

Graduate Supervisory Experience:

Broekhoven-Fiene, Hannah, PhD student (2012-present); MSc student (2009-2011)
Draper, Zachary, MSc student (2012 - present)

Undergraduate Supervisory Experience:

Eight undergraduate co-op students for ten periods of 4 months each from 2004 to present. These have resulted in student co-authorship on several publications, most prominently that of the archive paper on SCUBA polarimeter results from 1998-2005 for which the bulk of the re-reduction of over 2800 SCUPOL maps was done by student Christie McPhee.

Teaching Assistant, McMaster University and University of Calgary (1994-2000): Experience demonstrating and grading labs, running tutorials, marking assignments and occasionally lecturing for the Department of Physics & Astronomy (physics, astronomy and lab courses).

Public Outreach:

2012 Jul	*Searches for External Solar Systems: Victoria, worldwide and beyond* Cowichan star party, Duncan, BC	public talk
2011 Mar	A-channel interview about Kepler results	TV interview
2010 Sep	RASC talk at Metchosin Star Party *Finding External Solar Systems: from disks to planets and disks*	public talk
2010 Mar	CSA Olympic Lecture Partnership *Making and Revealing Planets: the power of discs around stars* at West Vancouver Public Library, Vancouver, BC	public talk
2009 Dec	St. Margaret's Junior School, Victoria, BC	science fair judge
2009 Oct	*How we search for Extrasolar Planets*, GVPL presentation (National Science & Technology Week)	public talk
2009	mentored student from Vancouver Island University on paths to astronomy careers	
2009 Oct	Keynote Speaker on *Searches for External Solar Systems: from Victoria to Hawaii and Beyond* at the "Quantum Leaps Conference" for high school girls interested in STEM subjects. Run by the Mid-Island Science, Technology & Innovation Council, Nanaimo, BC	public talk
2008 Oct	National Science & Technology Week, *How we search for Extrasolar Planets*, Greater Victoria Public Library, Victoria, BC	public talk
2008 Mar	MS Infinity Conference talks on *Careers in Astronomy* at St. Margaret's School Gr. 6-12, Victoria, BC	public talk
2007 Dec	Contributor to "Quirks & Quarks" Q&A, Program of the Canadian Broadcasting Corporation's Radio One	radio interview
2006 Oct	*Careers in Astronomy*, Presentation to High School Students for Career Day, Herzberg Institute of Astrophysics	school group
2006 May	*A Closer Look at Some Familiar Messier Objects*, RASC Victoria Star Party	public talk
2006 Feb	*Careers in Astronomy*, Presentation to High School Students for Career Day, Herzberg Institute of Astrophysics	school group
2005 Sep	*The Long and Grinding Road: The Phenomenon of Debris Disks around Main Sequence Stars*, RASC Monthly Seminar, Victoria, BC	public talk

2005 Mar	*Careers in Astronomy*, Presentation to High School Students for Career Day, Herzberg Institute of Astrophysics	school group
2004 Feb	*Careers in Astronomy*, Presentation to all Grade 8 students of Lipman School, San Mateo, CA	school group
2003-2004	Project ASTRO Volunteer: ASP program to pair astronomers with a teacher and class for a minimum of 4 visits per school year	school group
2000 Feb	*The SCUBA Polarimeter: The Newest Views of Magnetic Structure in Star-Forming Regions,* Hamilton Amateur Astronomers Guest Lecturer	public talk
1996 -- 2001	Planetarium Demonstrator: Presenting planetarium shows for a wide variety of audiences, including groups of amateur astronomers, upper level undergraduate physics students, elementary and high schools, special needs groups, Cub Scouts, Girl Guides and the general public. During this period, I also maintained the planetarium's website.	planetarium demonstrator website maintenace
1996	*Things that Go Bang in the Night* RASC Monthly Seminar, Calgary, AB	public talk

Organizational & Service Experience:

NRC - Herzberg Astronomy & Astrophysics Programs

2012 - present	Member, Executive Committee of the IAU Working Group on Women in Astronomy
2011-2013	Local Organizing Chair and Science Organizing Committee Member for the IAU Symposium 299: "Exploring the Formation and Evolution of Planetary Systems" to be held from 2-7 June 2013, Victoria BC
2011	Plaskett Fellow Selection committee
2010-2011	Member LOC, NAASC ALMA conference "ALMA: Extending the Limits of Astrophysical Spectroscopy" (Jan 2011)
2010	Local Organizer, Face-to-face meeting of the DEBRIS Herschel Survey team, 15 attendees
2009-present	Member, Canadian ALMA Science Advisory Committee
2009	Local Organizer, Face-to-face meeting of the Spitzer Gould's Belt team, 15 attendees

2009	Member LOC/SOC, Summer School on “Preparing for ALMA: from Science to Observations: A Hands-on Workshop for faculty, postdocs and students”
2007	Local Organizer, Face-to-face meeting of the Spitzer Gould’s Belt team, 20 attendees
2006	LOC Chair, Summer School on “Observing Techniques in the Submillimeter” (~75 participants)
2005-2011	Member IT Users Group
2005-2008	Co-organizer, HIA Science Seminars
2005	Organizer, Grassroots Seminars

Canadian Astronomical Society

2008	Member, Nominating Committee
2008	Co-organizer, Third Survey of Women in Canadian Astronomy
2006	Co-author, “2006 Survey of Women in Canadian Astronomy”
2001	Co-author, Survey “Women in Canadian Astronomy: A Ten-Year Survey”
2001	Co-organizer, Third Annual Graduate Student Workshop on Skills & Issues for the Modern Astronomer, 26 May, 2001 (approximately 95 participants)
1999-2001	Chair, co-founder, Graduate Student Committee

Refereeing

I have acted as a referee for the Astrophysical Journal, Astronomical Journal, Astronomy & Astrophysics, NASA Origins of Solar Systems Program, the Division of Astronomical Sciences (AST) of the National Science Foundation, and individual grant programs. In addition, I have refereed observing proposals from the James Clerk Maxwell and Gemini telescopes. I have been invited to review a grant proposal for NSERC (which I had to decline because the candidate was a collaborator).