

CONTACT INFORMATION

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EMPLOYMENT

ASSISTANT PROFESSOR (INDEPENDENT CAREER) <i>Department of Physics & Astronomy, University of Calgary</i>	06/2006 – PRESENT <i>Calgary, AB</i>
ALBERTA INGENUITY ASSOCIATESHIP FELLOW (PDF) <i>Department of Physics & Astronomy, University of Calgary</i> under the supervision of Dr. A.R. Taylor	01/2006 – 06/2006 <i>Calgary, AB</i>
PARENTAL LEAVE	11/2004 – 12/2005
ALBERTA INGENUITY ASSOCIATESHIP FELLOW (PDF) <i>Department of Physics & Astronomy, University of Calgary</i> under the supervision of Dr. A.R. Taylor	07/2002-10/2004 <i>Calgary, AB</i>
CGPS POSTDOCTORAL FELLOW <i>Department of Physics & Astronomy, University of Calgary</i> under the supervision of Dr. A.R. Taylor	01/2002 – 06/2004 <i>Calgary, AB</i>
SESSIONAL INSTRUCTOR <i>Department of Physics & Astronomy, University of Calgary</i> Physics 455 – Electrostatics Physics 457 – Electrodynamics	09/2003 – 12/2003 01/2002 – 04/2002
GRADUATE STUDENT <i>Department of Physics & Astronomy, University of Calgary</i> Ph.D. in Astrophysics under the supervision of Dr. A.R. Taylor	09/1996 – 01/2002 <i>Calgary, AB</i>
HARDWARE DESIGNER <i>Nortel Networks</i> under the supervision of L. Pratico	12/1993 – 08/1996 <i>Ottawa, ON</i>
GRADUATE STUDENT <i>Department of Electrical and Computer Engineering, Queen's University</i> M.Sc. in Electrical Engineering under the supervision of Dr. J.C. Cartledge	09/1991 – 12/1993 <i>Kingston, ON</i>
GEOPHYSICAL TRAINEE <i>Amoco Canada</i> under the supervision of D. Au	05/1991 – 08/1991 <i>Calgary, AB</i>
RESEARCH ASSISTANT <i>Department of Physics, University of Alberta</i> NSERC USRA scholar under the supervision of Dr. J.C. Sampson (Space Physics)	05/1990 – 08/1990 <i>Edmonton, AB</i>

EDUCATION

DOCTOR OF PHILOSOPHY IN ASTROPHYSICS <i>University of Calgary</i> Subject and Thesis Supervisor: Galactic Magnetism; Dr. A.R. Taylor Thesis Title: The Magnetic Field in the Outer Galaxy (15 Citations according to ADS)	09/1996 – 01/2002 <i>Calgary, AB</i>
MASTER OF SCIENCE IN ELECTRICAL ENGINEERING <i>Queen's University</i> Subject and Thesis Supervisor: Optical Communications; Dr. J.C. Cartledge Thesis Title: Switching Induced Interference in Fast Wavelength Switched CPFSK Systems	09/1991 – 12/1993 <i>Kingston, ON</i>
BACHELOR OF SCIENCE (HONOURS) WITH FIRST CLASS HONOURS <i>University of Alberta</i> Subject and Thesis Supervisor: Space Physics; Dr. J.C. Sampson Thesis Title: Atmospheric Gravity Waves and the Auroral Electrojet	09/1986 – 04/1991 <i>Edmonton, AB</i>

HONORS AND AWARDS

INDEPENDENT CAREER AWARDS

• Engineering Students' Society 1 st and 2 nd Year Teaching Excellence Award (Block 4)	03/2014
• Faculty of Science Award for Excellence in Teaching	05/2013
• Students' Union Teaching Excellence Award (Honorable mention)	04/2013
• Students' Union Teaching Excellence Award nomination	12/2011

POSTDOCTORAL AWARDS

• NSERC (\$40k/yr for 2 years; National)	<i>(declined for Faculty position)</i> 2004
• Alberta Ingenuity Associateship (\$55k/yr for 3 years; Provincial)	01–06/2006; 07/2002 – 10/2004
• UTI Fellowship (\$15k/yr; Institutional)	01/2006 – 06/2006

GRADUATE STUDENT AWARDS

• Plaskett Medal - CASCA Thesis Prize (Gold Medal + \$600; National)	06/2004
• UofC nominee for the CAGS/UMI Distinguished Dissertation Award	2003
• UofC Research Fellowship in Physics & Astronomy (\$6k; Institutional)	07/2001
• UofC Silver Anniversary Graduate Fellowship (\$18k; Institutional)	09/2000 – 08/2001
• Ralph Steinhaur Award of Distinction (\$20k; Provincial)	09/1999 – 08/2000
• JDS Uniphase Scholarship (\$5k; National)	09/1999 – 08/2000
• Ralph Steinhaur Award of Distinction (\$15k; Provincial)	09/1998 – 08/1999
• Izaak Walton Killam Memorial Scholarship – Honorary (\$3.2k, National)	05/1998 – 04/1999
• NSERC PGS B (\$17.5k/yr; National)	09/1996 – 08/1998
• UofC Fee Scholarship (\$3k/yr; Institutional)	09/1996 – 08/1998
• Ontario Graduate Scholarship (\$6k; Provincial)	<i>(declined for NSERC)</i> 09/1992
• NSERC PGS 1,2 (15k/yr; National)	09/1991 – 08/1993
• Queen's Graduate Award (\$6k, Institutional)	09/1991 – 08/1992

UNDERGRADUATE AWARDS

• Dean's Silver Medal in Science (Silver medal; Institutional)	05/1991
• NSERC USRA (\$3.2k; National)	05/1990 – 08/1990
• Physics Book Prize (Institutional)	09/1990 & 09/1989
• James McCrie Douglas Memorial Scholarship (\$800; Institutional)	09/1989 – 04/1990
• Sunwapta Broadcasting Limited Scholarship (\$200; Institutional)	09/1989 – 04/1990
• Alexander Rutherford Scholarship (\$2000; Provincial)	09/1986 – 04/1987

RESEARCH EXPERIENCE

- Refereed publications in two disciplines: Astrophysics and Electrical Engineering
- 16 peer-reviewed publications plus 1 in review (resubmitted October 11, 2014), 12 non-reviewed publications, and 8 science/observation proposals.
- h-factor: 13 (14 including references to my PhD thesis); **Career citations: 800+**.

INDEPENDENT CAREER: RADIO ASTRONOMY (UNIVERSITY OF CALGARY)

- Assistant Professor (on sabbatical: July 1, 2014 – June 30, 2015)
- NSERC supported (40% increase in Discovery Grant funding in my second round)
- Primary contributions so far: Demonstrated that there is likely only one “reversed” region in the Galactic magnetic field; was the first to show that the pitch angle of the field varies with radius in our Galaxy; demonstrated that the measurement of the pitch angle in spiral galaxies may be a discriminating method for determining the likely dynamo mode at work in a given galaxy; no evidence for a warp in our magnetic field.
- 9 refereed publications with a 10th submitted February 2, 2014, with *over* 500 citations (one first-author paper has 120+ citations).
- 4 non-refereed conference proceedings (one of which was an invited review).
- 10 Invited talks (+2 in the coming year), 22 contributed talks, 5 posters
- Trainees: 11 (3 graduate students, 3 research project students (P598/599), 5 summer students)

POSTDOCTORAL WORK: RADIO ASTRONOMY (UNIVERSITY OF CALGARY)

- Funded by Alberta Ingenuity and University Technologies International.
- Awarded an NSERC PDF, but declined for a faculty position.
- Primary contributions: Confirmed that there is no magnetic field reversal in the outer Galaxy; demonstrated that the Galactic magnetic field likely decays as $1/R$ in the disk of the outer Galaxy; produced a new set of RMs for the “Southern Galactic Plane Survey” that was used to do the first analysis of the small-scale fluctuations of RMs in/out of the spirals arms.
- 2 refereed publications and 3 non-refereed publications
- 8 Invited talks, 7 contributed talks, 1 poster
- Trainees: 2 summer students (one was co-supervised)

GRADUATE WORK (II): RADIO ASTRONOMY (UNIVERSITY OF CALGARY)

- Received the Canadian Astronomical Society Thesis Prize (Plaskett Medal)
- Funded independently throughout degree (sources include NSERC, Killam, Ralph Steinhauer).
- Most significant contributions: Using the Dominion Radio Astrophysical Observatory, demonstrated that simultaneous observations of closely-spaced polarisation angles are an effective method for determining RMs (several other facilities emulated this technique with their telescopes, including the Australia telescope compact array and the Effelsberg Telescope in Germany); increased the number of RMs in the disk of the outer Galaxy by more than a factor of 10; demonstrated that there is likely no magnetic field reversal in the outer Galaxy; provided the first evidence that the small-scale field is correlated to the large-scale field.
- 3 refereed and 5 non-refereed publications, 9 contributed talks, 2 posters
- Trainees: 1 summer student (co-supervised)

GRADUATE WORK (I): OPTICAL COMMUNICATIONS (QUEEN’S UNIVERSITY)

- Independently funded by NSERC for both years.
- Established that switching induced interference is an important design consideration in fast wavelength-switched systems; demonstrated how various key detectors respond differently to this interference.
- 2 refereed publications, 2 contributed talks, 1 poster
- Following my MSc I worked in industry as a hardware designer for 2.5 years.

UNDERGRADUATE THESIS WORK: SPACE PHYSICS (UNIVERSITY OF ALBERTA)

- Found evidence that sudden changes in the auroral electrojet current is a source of atmospheric gravity waves.
- Received a 9 (out of 9) on my thesis work.
- 1 contributed talk.

TEACHING EXPERIENCE AND STUDENT EVALUATIONS

Term	Course	Course Title ¹	Enrollment	USRI ² Overall Instruction My Score (Dept. Faculty) ³
*Winter 2014	PHYS 259	Electricity & Magnetism (for Engineers)	146	6.16 (5.63, 5.70)
**Winter 2013	SCIE 501	Capstone Project Course In Natural Science (CC)	21	6.33 (5.87, 5.88)
***Fall 2012	PHYS 221	Introductory Mechanics	177	5.83 (4.72, 5.55)
Winter 2012	SCIE 501	Capstone Project Course In Natural Science (CC)	28	6.65 (6.05, 5.88)
****Fall 2011	PHYS 221	Introductory Mechanics	199	6.68 (5.23, 5.46)
Winter 2011	SCIE 501	Capstone Project Course In Natural Science (CC)	25	6.69 (5.82, 5.73)
Fall 2010	PHYS 221	Introductory Mechanics	92	6.18 (5.00, 5.35)
Winter 2010	PHYS 691.x2	Graduate Seminar	15	6.75 (5.75, 6.04)
Winter 2010	SCIE 501	Capstone Project Course In Natural Science	28	6.58 (5.85, 5.71)
Fall 2009	PHYS 221	Introductory Mechanics	171	5.7 (4.89, 5.27)
Fall 2009	PHYS 691.x3	Effective Scientific Writing	10	6.5 (6.14, 6.15)
Fall 2009	PHYS 691.x1	Effective Scientific Speaking	8	5.75 (6.14, 6.15)
Winter 2009	SCIE 501	Capstone Project Course In Natural Science	22	6.07 (5.65, 5.66)
Winter 2009	PHYS 457	E&M III (Electrodynamics)	14	5.83 (5.03, 5.39)
Winter 2008	PHYS 457	E&M III (Electrodynamics)	15	5.86 (4.94, 5.38)
Fall 2007	PHYS 455	E&M II (Electrostatics)	19	5.54 (5.06, 5.35)
Winter 2007	PHYS 457	E&M III (Electrodynamics)	16	6.00 (4.97, 5.33)
Fall 2003	PHYS 455	E&M II (Electrostatics)	14	6.00 (Withheld, 5.38)
Winter 2002	PHYS 457	E&M (Electrodynamics)	25	5.61 (5.56, 5.29)

1. CC = Course Coordinator.
2. USRI = Universal Student Ratings of Instruction; evaluated out of 7.
3. The numbers in brackets are the averages for overall instruction for the Department and Faculty based on courses taught at the same level in the same semester.

* I was awarded the First and Second Year Teaching Excellence Award for Block 4, from the Engineering Students' Society (March 20, 2014).

** In May 2013, I was awarded a Faculty of Science Award for Excellence in Teaching (one of 2 for teaching.)

*** I received a Students' Union Teaching Excellence Award for P221-Fall 2012 (one of 5 awards in Science.)

**** I was nominated for a Students' Union Teaching Excellence Award for P221 (Fall 2011).

TRAINEES (HIGHLY QUALIFIED PERSONNEL, HQP); TOTAL: 14

GRADUATE STUDENTS SUPERVISED (3)

	Student Name	Type	Thesis Title	Period
3	A. Ordog	MSc	The Cross-scale Coupling between the Large- and Small-scale Magnetic Fields in the Galaxy	09/2013 – PRESENT
2	B. Cooper	MSc	The Disk-Halo Transition of the Galactic Magnetic Field	09/2011 – 05/2014
1	C. Van Eck	MSc	Identifying Relationships between Galactic Magnetic Fields and the Interstellar Medium	05/2010 – 08/2012

UNDERGRADUATE RESEARCH PROJECT STUDENTS (3)

	Student Name	Course	Project Title	Period
3	A. Ordog	P599	Analysis of Polarisation Data from the Canadian Galactic Plane Survey to Measure the Galactic Magnetic	Fall 2012
2	C. Van Eck	P598	Measuring the Galactic Magnetic Field with the Very Large Array	F08/W09
1	K. Rae	P598	Alignment of the Galactic Magnetic Field	F08/W09

UNDERGRADUATE SUMMER STUDENTS SUPERVISED OR CO-SUPERVISED (8)

	Student Name	Project Title (Funding)	Period
8	A. Ordog	Cross-scale Correlations in the Galactic Magnetic Field (NSERC USRA)	Summer 2013
7	A. Danko	The Relevance of Small and Homegrown in the Age of Ultra-big and Exotic – Part 2 (NSERC USRA)	Summer 2012
6	A. Beauchamp	The Relevance of Small and Homegrown in the Age of Ultra-big and Exotic (NSERC USRA)	Summer 2011
5	K. Rae	Processing the CGPS – Turning Straw into Gold.	Summer 2009, 2010
4	C. Van Eck	A Question of Alignment: The Galactic Magnetic Field versus the Optical Spiral Arms (NSERC USRA x 2)	Summer 2008, 2009
3	M. Underwood	MHD and the Galactic Magnetic Field (NSERC USRA; Primary supervisor: Rachid Oyed)	Summer 2004
2	D. Giang	Data Processing	May/June 2002
1	C. Stewart	Data Processing for my PhD (Primary supervisor: Russ Taylor)	Summer 2000

SERVICE: DEPARTMENT LEVEL

- Member, graduate supervision committee (5, plus 3 of my own students). 2007 – PRESENT
Students listed below are only those not in my group.

	Student	Type	Supervisor	Exam	Annual Meetings
5	K. M.	PhD	Mike Weiser	---	September 30, 2013 & August 20, 2014
4	N. H.	MSc	Mike Weiser	Defense: April 29, 2014	July 29, 2013
3	K. T.	MSc	René Plume	Defense: June 7, 2013	October 27, 2011 & September 13, 2012
2	R. K.	MSc	David Knudsen	Defense: July 15, 2010	August 21, 2009
1	M. K.	MSc	Denis Leahy	Defense: July 31, 2009	August 28, 2008

- Member, graduate student examination committees (14). 2008 – PRESENT

	Student	Department	Supervisor	Exam	Date
14	H. D.	Physics & Astronomy	David Hobill	MSc Defense	August 20, 2014
13	M. K.	Physics & Astronomy	Christoph Simon	Candidacy Exam	December 13, 2013
12	E. Z.	Physics & Astronomy	Barry Sanders	Candidacy Exam	November 19, 2013
11	A. T.	Electrical and Computer Engineering	Laleh Behjat	MSc Defense	January 17, 2013
10	M. R.	Physics & Astronomy	Nasser Moazzen-Ahmadi	Candidacy Exam	April 27, 2012
9	G. W.	Electrical and Computer Engineering	Leonid Belostotski	Candidacy Exam	March 30, 2012
8	A. B.	Electrical and Computer Engineering	Leonid Belostotski	MSc Defense	September 14, 2011
7	D. N.	Electrical and Computer Engineering	Leonid Belostotski	MSc Defense	July 5, 2011
6	S. P.	Electrical and Computer Engineering	Brent Maundy	MSc Defense	April 4, 2011
5	M. A.	Physics & Astronomy	Nasser Moazzen-Ahmadi	PhD Defense	June 30, 2010
4	N. K.	Physics & Astronomy	Sun Kwok	Candidacy Exam	November 25, 2009
3	L. M.	Physics & Astronomy	Russ Taylor	MSc Defense	September 10, 2009
2	A. R.	Physics & Astronomy	David Hobill	MSc Defense	July 30, 2009
1	M. C.	Electrical and Computer Engineering	Elise Fear	MSc Defense	January 9, 2008

SERVICE: DEPARTMENT LEVEL (CONTINUED)

- Undergraduate Laboratory Committee 2013 – PRESENT
- Faculty Advisor for the Society of Physics Students Calgary Chapter 2012 – PRESENT
- Member of the LOC for CASCA 2012 (Calgary) 2010 – 2012
- Undergraduate Liaison Committee (Faculty representative) 2011 – 2012
- Undergraduate Affairs Committee 2010 – 2012
- Graduate Scholarships and Admissions Committee 2009
- PhD qualifying exam committee 2006, 2007, 2010, 2011
- Undergraduate Teaching Lab Development 2007 – 2010
- Faculty (Radio Astronomy) Hiring Committee 2008

SERVICE: UNIVERSITY LEVEL

- Dean's Advisory Committee on Women in Science 2002 – 2004
- Science Teaching Forum Panel Member (Three panelists: biology, computer science, physics) September 25, 2014
“Old Dogs, Old Tricks: tried and true teaching strategies that stand the test of time.”

SERVICE: NATIONAL LEVEL

- CASCA Ground-based Astronomy Committee (GAC) 2009 – 2012
- Canadian SKA Science Advisory Committee 2007 – 2010

SERVICE: INTERNATIONAL LEVEL

- Elected to the Executive Committee of NW Section of the American Physical Society (APS) 2011 – 2016
 - As Chair-elect (2013-2014), it was my responsibility to arrange and organize the program for the annual APS-NW meeting held in Seattle. May 1–3, 2014
 - As of May 3, 2014, I am the chair of the NW Section of the APS. 2014–2015
- Member of SOC for SpS4 of the IAU General Assembly (Beijing) 2010 – 2012
- Session Chair, NW American Physical Society meeting in Vancouver, BC May 14 -16, 2009

SERVICE: UNDERGRADUATE AND GRADUATE LEVEL

- Founding chairperson of the Graduate Liaison Committee (UofC) 1999 – 2000
- UofC's Graduate student representative for CASCA's Graduate Student Committee 1998 – 2000
- Electrical Engineering representative to the Graduate Student Association (Queen's) 1992 – 1993
- Founding treasurer of the Undergraduate Physics Club (UofA) 1990 – 1991

SERVICE: REVIEW ACTIVITIES

- Referee for the Astrophysical Journal 2011, 2012, 2013
- Referee for the Monthly Notices of the Royal Astronomical Society 2009

SERVICE: OUTREACH ACTIVITIES

- University week presentation on ‘The Solar System’ for Grade 5 students June 4, 2014
- Host for RAO Open house – an evening of student presentations May 10, 2014
- Presentation on Sound and Hearing at Dr. E.W. Coffin Elementary School November 12, 2013
- Presenter at Research Night for PHAS Undergraduates January 23, 2013
- Panel member for “Science Cafe” at Telus Spark (Is There Life in Outer Space?) October 4, 2012
- Guest on CBC Radio’s **Quirks and Quarks** June 6, 2012
- December 6, 2008
- Speaker for ‘Professional Development Day’ for Teachers at RAO May 18, 2012
- Engineering Club assistant at Dr. E. W. Coffin Elementary School T&R lunch hour, March, 2012
- Information night @ UofC March 21, 2012
- University of Calgary Open House November 5, 2011
- Presenter for the UofC undergraduate club, “SSPEAK” (Scientific Speaking club) October 7, 2011
- Public talks at Rothney Astrophysical Observatory (RAO) September 17, 2011
- September 26, 2009
- October 4, 2008
- October 20, 2007
- University of Calgary Information Fair September 7, 2011
- Citizens in Action speaker at Terry Fox Junior High School March 3, 2011
- Science Club assistant at Dr. E. W. Coffin Elementary School T&R lunch hour, March, 2011
- Royal Astronomical Society meeting guest speaker (in Penticton, BC) June 10, 2010
- Radio astronomy talk for high school students from Webber Academy March 23, 2010
- Presentation to two groups from the Calgary Girls School at RAO February 3 & 4, 2010
- Physics 120 Radio Astronomy presentation January 8, 2010
- January 9, 2009
- January 11, 2008
- Coordinator of Physics/Chemistry tour for grade 9 girls from Nickel Jr. High June 29, 2009
- UofC High School Prospective Student Information Night (for PHAS and NTSC) March 4, 2009
- Grade 6 ‘Sky Science’ talk at Ramsay School (Calgary Science Network) December 17, 2008
- Almadina Language Charter Academy Career Day speaker April 11, 2008
- WISE speaker series presenter February 3, 2008
- Grade 9 students mentorship volunteer June 2007

MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

- Canadian Association of Physicists (CAP) 2012 – PRESENT
- American Physical Society (APS) 2011 – PRESENT
- International Astronomical Union (IAU) 2008 – PRESENT
- Canadian Astronomical Society (CASCA) 1997 – PRESENT

RESEARCH CONTRIBUTIONS

HQP types with: *Graduate Student*, *Undergraduate student* (as supervised by me). I identify myself in bold.
Journal Impact Factors (I.F.) are from Thompson Reuter's Web of Science (2012)

PEER-REVIEWED PUBLICATIONS (INDEPENDENT CAREER). TOTAL: 10

17. *Van Eck*, C.L., **Brown, J.C.**, Fletcher, A., Shukurov, A. *Magnetic Fields in Nearby Spiral Galaxies*, in preparation for the *Astrophysical Journal*, 19 pp., resubmitted October 14, 2014.
Journal I.F.: 6.73
Citations N/A
16. Foster, T., Kothes, R., **Brown, J.C.** (2013) A Relation Between the Warm Neutral and Ionized Media Observed in the Canadian Galactic Plane Survey, *Astrophysical Journal Letters*, vol. 773(L11), 5 pp.
(arXiv:astro-ph/1307.4358)
Journal I.F.: 6.345
Citations: 1.
15. Mao, S.A., McClure-Griffiths, N.M., Gaensler, B.M., **Brown, J.C.**, Haverkorn, M., Kronberg, P.P, *Van Eck*, C.L., Stil, J.M., Shukurov, A., Taylor, A.R. (2012) *New Constraints on the Galactic Halo Magnetic Field using Rotation Measures of Extragalactic Sources Towards the Outer Galaxy*, *Astrophysical Journal*, vol. 755, 15 pp.
(arXiv:astro-ph/1206.3314)
Journal I.F.: 6.73
Citations: 16.
14. Oppermann, N., Junklewitz, H., Robbers, G., Bell, M.R., Enßlin, T.A., Bonafede, A., Braun, R., **Brown, J.C.**, Clarke, T.E., 21 others, and *Van Eck*, C.L. (2012) An Improved Map of the Galactic Faraday Sky, *Astronomy & Astrophysics*, vol. 542, 14 pp. (arXiv:astro-ph/1111.6186)
Journal I.F.: 5.084
Citations: 52.
13. *Van Eck*, C. L., **Brown, J.C.**, Stil, J. M., Rae, K M., Mao, S.A., Gaensler, B. M., Shukurov, A., Taylor, A. R., Haverkorn, M., Kronberg, P. P., McClure-Griffiths, N. (2011) *Modeling the Galactic Magnetic Field using New Rotation Measure Observations in the Galactic Disk from the Very Large Array*, *Astrophysical Journal*, vol. 728, pp. 97-110 (arXiv:astro-ph/1012.2938)
Journal I.F.: 6.73
Citations: 55.
12. **Brown, J.C.**, Stil, J., Landecker, T. L. (2008) *Visualizing the Invisible using Polarisation Observations*, *Physics in Canada*, vol. 64, pp. 215-225 (invited contribution to a special issue on *Astrophysics*; arXiv:astro-ph/1007.1015)
Journal I.F.: 0.92
Citations: 1.
11. Johnston, S., Taylor, R., Bailes, M., Bartel, N., Baugh, C., Bietenholz, M., Blake, C., Braun, R., **Brown, J.** and 41 coauthors (2008) *Science with ASKAP. The Australian Square-Kilometre-Array Pathfinder*, *Experimental Astronomy*, vol. 22, pp. 151-273 (arXiv:astro-ph/0810.5187)
Journal I.F.: 2.969
Citations: 136.
10. Haverkorn, M., **Brown, J.C.**, Gaensler, B. M., McClure-Griffiths, N. M. (2008) *The Outer Scale of Turbulence in the Magnetoionized Galactic Interstellar Medium*, *Astrophysical Journal*, vol. 680, pp. 362-370 (arXiv:astro-ph/0802.2740)
Journal I.F.: 6.73
Citations: 68.

9. Johnston, S., Bailes, M., Bartel, N., Baugh, C., Bietenholz, M., Blake, C., Braun, R., **Brown, J.** and 42 coauthors (2007) *Science with the Australian Square Kilometre Array Pathfinder*, Publications of the Astronomical Society of Australia, vol. 24, pp. 174-188 (arXiv:astro-ph/0711.2103)
Journal I.F.: 3.120
Citations: 86.
8. **Brown, J.C.**, Haverkorn, M., Gaensler, B.M., Taylor, A.R., Bizunok, N.S., McClure-Griffiths, N.M., Dickey, J.M., Green, A.J. (2007) *Extragalactic Rotation Measures in the Southern Galactic Plane Survey: New Insights into the Large-Scale Magnetic Field in the Inner Milky Way*, *Astrophysical Journal*, vol. 663, pp. 258-266 (arXiv:astro-ph/0704.0458)
Journal I.F.: 6.73
Citations: 120.

 PEER-REVIEWED PUBLICATIONS (PDF WORK). TOTAL: 2

7. Haverkorn, M., Gaensler, B.M., **Brown, J.C.**, Bizunok, N.S., McClure-Griffiths, N.M., Dickey, J.M., Green, A.J. (2006) *Enhanced Small-Scale Faraday Rotation in the Galactic Spiral Arms*, *Astrophysical Journal Letters*, vol. 637, pp. L33-L35 (arXiv:astro-ph/0512456)
Journal I.F.: 6.345
Citations: 55
6. **Brown, J.C.**, Taylor, A.R., Weilebinski, R., Mueller, P. (2003) *On Magnetic Field Reversals in the Outer Galaxy* *Astrophysical Journal Letters*, vol. 592, pp. L29-L32 -37 citations.
Journal I.F.: 6.345
Citations: 39

 PEER-REVIEWED PUBLICATIONS (GRADUATE STUDENT WORK). TOTAL: 5

5. **Brown, J.C.**, Taylor, A.R., Jackel, B.J. (2003) *Rotation Measures of Compact Sources in the Canadian Galactic Plane Survey*, *Astrophysical Journal Supplement Series*, vol. 145, pp. 213-223
Journal I.F.: 16.238
Citations: 58.
4. **Brown, J.C.** and Taylor, A.R. (2001) *The Structure of the Magnetic Field in the Outer Galaxy from Rotation Measure Observations Through the Disk*, *Astrophysical Journal Letters*, vol. 563, pp. L31-L34
Journal I.F.: 6.345
Citations: 47
3. English, J., Taylor, A.R., Irwin, J.A., Dougherty, S.M., Basu, S., Beichman, C., **Brown, J.**, Cao, Y., Carignan, C., Crabtree, D., Dewdney, P., Duric, N., Fich, M., Gagnon, E., Galt, J., Germain, S., Ghazzali, N., Gibson, S. J., Godbout, S., Gray, A., Green, D.A., Heiles, C., Heyer, M., Higgs, L., Jean, S., Johnstone, D., Joncas, G., Landecker, T., Langer, W., Leahy, D., Martin, P., Matthews, H., McCutcheon, W., Moriarity-Scheiven, G., Pineault, S., Purton, C., Roger, R., Routledge, D., St-Louis, N., Tapping, K., Terebey, S., Vaneldik, F., Watson, D., Willis, T., Wendker, H., Zhang, X. (1998) *The Canadian Galactic Plane Survey*, Publications of the Astronomical Society of Australia, vol. 15, no. 1, pp. 56-59
Journal I.F.: 3.120
Citations: 32.

2. **Brown, J.C.** and Cartledge, J.C. (1994) *Interference in CPFSK Optical Crossconnect Systems with Noncoherent Detection*, Electronics Letters, vol 30, pp. 2156-2157
Journal I.F.: 1.038
Citations: 0
1. **Brown, J.C.** and Cartledge, J.C. (1994) *Interference in Fast Wavelength Switched CPFSK Systems with Heterodyne Detection*, IEEE Photonics Technology Letters, vol. 6, pp. 863-865.
Journal I.F.: 2.038
Citations: 1

 PEER-REVIEWD PUBLICATIONS (SIGNIFICANTLY IN PREPARATION). TOTAL: 1

1. **Brown, J.C.** et al. (2014) *Revisiting the Magnetic Field in the Disk of the Outer Galaxy using New Rotation Measures from the Canadian Galactic Plane Survey*, in preparation for the Astrophysical Journal.

This paper is the conclusion of the CGPS for Rotation Measure calculations and represents over a decade of work. The data that will be published in this paper have already been used in 3 other publications (16, 15, 13).

 NON-REFEREED CONFERENCE PROCEEDINGS (INDEPENDENT CAREER). TOTAL: 4

12. **Brown, J.C.** (2011) *The Magnetic Field of the Milky Way Galaxy*, ASP Conference Series (eds. R. Kothes, T.L. Landecker and A.G. Willis), vol 438, pp 216–228; proceedings for *The Dynamic ISM: A Celebration of the Canadian Galactic Plane Survey*, held in Naramata, British Columbia, June 6–10, 2010 (arXiv:astro-ph/1012.2932).
Citations: 10.
11. **Rae, K.M.** & **Brown, J.C.** (2011) *Constraints on the Galactic Magnetic Field From the Canadian Galactic Plane Survey*, ASP Conference Series (eds. R. Kothes, T.L. Landecker and A.G. Willis), vol 438, pp 229–235; proceedings for *The Dynamic ISM: A Celebration of the Canadian Galactic Plane Survey*, held in Naramata, British Columbia, June 6–10, 2010 (arXiv:astro-ph/1012.2934).
Citations: 8.
10. **Van Eck, C.L.** & **Brown, J.C.** (2011) *Modeling the Galactic Magnetic Field using Rotation Measure Observations in the Galactic Disk from the CGPS, SGPS, and the VLA*, ASP Conference Series (eds. R. Kothes, T.L. Landecker and A.G. Willis), vol 438, pp 236–242; proceedings for *The Dynamic ISM: A Celebration of the Canadian Galactic Plane Survey*, held in Naramata, British Columbia, June 6–10, 2010 (arXiv:astro-ph/1012.2936).
Citations: 2.
9. Kothes, R., **Brown, J.** (2009) *Probing ISM Magnetic Fields with SNRs*, IAU Symposium, vol. 259, pp. 75-80; proceedings for *Cosmic Magnetic Fields: from Planets, to Stars and Galaxies*, held in Tenerife, Spain, November 3–7, 2008 (arXiv:astro-ph/0812.3392).
Citations: 6.

 NON-REFEREED CONFERENCE PROCEEDINGS (PDF WORK). TOTAL: 3

8. Haverkorn, M., Gaensler, B.M., **Brown, J.C.** (2008) *Mapping Galactic Magnetism through Faraday Rotation of Polarized Extragalactic Sources*, Astrophysics and Space Science Proceedings for “Mapping the Galaxy and Nearby Galaxies” (eds. K. Wada and F. Combes) held on Ishigaki Island, Japan, June 26 – 30, 2006.
Citations: 1.

7. Haverkorn, M., Gaensler, B.M., **Brown, J.C.**, McClure-Griffiths, N.M., Dickey, J.M., Green, A.J. (2006) *Magnetic Fields in the Southern Galactic Plane Survey*, *Astronomische Nachrichten*, vol 327, pp 483-486; proceedings for *Origin and Evolution of Cosmic Magnetism* held in Bologna, Italy, August 29–September 2, 2005 (arXiv:astro-ph/0511407). Citations: 3.
6. Haverkorn, M., Gaensler, B., **Brown, J.**, McClure-Griffiths, N., Dickey, J., Green, A. (2005) *Enhanced Magneto-Ionic Fluctuations in the Milky Way's Spiral Arms*, in *Proceedings: The Magnetized Plasma in Galaxy Evolution*, pp. 80-85; conference held in Krakow, Poland, September 27–October 1, 2004.

 NON-REFEREED CONFERENCE PROCEEDINGS (GRADUATE WORK). TOTAL: 5

5. **Brown, J.C.** and Taylor, A.R. (2000) *Exploring the Galaxy's Magnetic Field using Rotation Measures of Point Sources*, in *Proceedings of the Canadian Galactic Plane Survey Polarisation Workshop*, pp. 35-42; meeting held in Montreal, Quebec, May 14, 2000.
4. Landecker, T.L., Knee, L.B.G., Brunt, C., Dewdney, P.E., Dougherty, S.M, Galt, J.A, Gray, A.D., Higgs, L.A., Kothes, R., Purton, D.R., Roger, R.S., Tapping, K., Wallace, B.J., Willis, A.G., **Brown, J.C.**, and 39 co-authors (1999) *The Canadian Galactic Plane Survey – Phase 2*, *Journal of the Royal Astronomical Society of Canada*, vol. 93, p. 182; Canadian Astronomical Society Annual General Meeting held in Halifax, Nova Scotia, June 27-30, 1999.
3. **Brown, J.C.**, Taylor, A.R. and Peracaula, M. (1999) *The Interstellar Magnetic Field of CXR 11*, in *Max-Planck-Institut für Radioastronomie Workshop Proceedings*, pp. 34-37; Foreground Polarisation Workshop held in Bonn, Germany, September 7-9, 1998. Citations: 2.
2. **Brown, J.C.**, Taylor, A.R. and Peracaula, M. (1999) *The Interstellar Magnetic Field of the Ionized Filament CXR 11*, in ASP Conference Series (eds. A.R. Taylor, T.L. Landecker, and G. Joncas), vol. 168, pp. 223-226; proceedings for *New Perspectives on the Interstellar Medium*, held in Naramata, British Columbia, August 22-28, 1998. Citations: 1
1. **Brown, J.C.**, Taylor, A.R., Gray, A.D., Landecker, T.L., and Dewdney, P.E. (1998) *Wide-Field Imaging Polarimetry as a Probe of the Interstellar Medium*, *Journal of the Royal Astronomical Society of Canada*, vol. 92, p27; Canadian Astronomical Society Annual General Meeting held in Edmonton, Alberta, June 14-17, 1997.

 OBSERVING AND SCIENCE PROPOSALS (INDEPENDENT CAREER). TOTAL: 8

8. Foster, T., **Brown, J.C.**, Kothes, R. (2011) *A new High-Resolution DRAO Survey of the Energetic Galactic Anticentre Disc: Impacts of High-Velocity HI Clouds from Above, and Polarized Chimney Blowouts from Within* observing proposal submitted to DRAO in July 2011 requesting 58 fields over 1 year of observing. Observations commenced in August 2011.
7. **Brown, J.C.**, Landecker, T.L., Rae, K.M., Kothes, R. (2010) *Imaging the Disk-Halo Transition*, observing proposal submitted to DRAO in January 2010 requesting 75 square degrees of observing over six months. We were awarded the full observing request, and observations commenced in April 2010. These data formed the basis for B. Cooper's MSc.

6. **Brown, J.C.**, Landecker, T.L., Wolleben, M., Stil, J.M. (2010) *Cosmic Magnetism: An LRP 2010 White Paper*, an invited white paper as part of the Long Range Plan (LRP) decadal review outlining the broad goals and directions in astronomical and astrophysical research in Canada (www.casca.ca/lrp2010).
5. Hutchings, J.B, **Brown J.**, Davidge, T., Holder, G., Kothes, R., Venn, K., Webb, T., Willott, C. (2010) *Report to the LRP by the Groundbased Astronomy Committee (GAC)*. This was the GAC contribution to the LRP review (www.casca.ca/lrp2010).
4. PI: Gaensler, B., Landecker, T.L., Taylor, A.R.; 40 Co-I's including **Brown, J.** (2009) *Polarisation Sky Survey of the Universe's Magnetism (POSSUM)* Following a successful EOI (#3), we were invited to write this proposal for ASKAP.
3. PI: Gaensler, B.; Co-I's: Beck, R., **Brown, J.** and 25 others (2008) *The ASKAP Rotation Measure and Polarisation Investigation (ARMPIT)*, Expression of Interest (EOI) for an ASKAP (Australian Square Kilometer Array Pathfinder) Survey Science Project (<http://www.atnf.csiro.au/projects/askap/users.html>)
2. Fraisse, A.A., **Brown, J.C.**, Dobler, G., Dotson, J.L., Draine, B.T., Frisch, P.C., Haverkorn, M., Hirata, C.M., Jansson, R., Lazarian, A., Magalhaes, A.M., Waelkens, A., Wolleben, M. (2008) *CMBPol Mission Concept Study: Foreground Science Knowledge and Prospects*, a 43 page proposal resulting from the CMB Polarization workshop held at FermiLab in June, 2008 (see *invited talks* below; arXiv:astro-ph/0811.3920).
Citations: 17.
1. Mao, A. **Brown, J.C.**, Gaensler, B., Taylor, A.R., Stil, J., Haverkorn, M., McClure-Griffiths, N., Shukurov, A., Kronberg, P. (2008) *Final Frontiers of the Milky Way's Magnetic Field* 96-hour observation proposal on the VLA with A. Mao and J.C. Brown as Co-PI's.

ORAL PRESENTATIONS (INVITED, INDEPENDENT CAREER). TOTAL: 10 [+2 planned]

- 20 *Colloquium* **Brown J.C.** (2015) The Magnetic Field of Our Galaxy: What We Think We Know, to be presented at the University of Lethbridge, April 2, 2015 [Invited by S. Das, April 3, 2014].
19. *Invited Seminar* **Brown, J.C.** (2014) *Recent Developments in Understanding the Magnetic Field of Our Galaxy*, to be presented at the Canadian Institute for Theoretical Astrophysics in Toronto, Fall 2014. [Invited by R. Shaw, August 21, 2014].
18. *Conference Presentation* **Brown, J.C.** (2013) *The Magnetic Field of the Milky Way*, at 'Cosmic magnetic fields: mathematical and observational descriptions', an invitation-only meeting held in celebration of the 60th birthday of Anvar Shukurov, held at Newcastle University, March 18-19, 2013.
17. *Invited Talk* **Brown, J.C.** (2012) *Recent Observations and Interpretations of the Magnetic Field in the Milky Way*, Annual meeting of the DFG research unit for 1254: Magnetisation of the Interstellar and Intergalactic Media, held in Mainz, Germany, July 9-13, 2012.
16. *Invited Talk* **Brown, J.C.** (2011) *Observational Constraints for the Galactic Dynamo in the Milky Way*, mini-conference on 'Understanding Astrophysical Dynamos' at the 53rd Annual Meeting of the American Physical Society – Division of Plasma Physics, Salt Lake City, Utah, November 14-18, 2011.
15. *Invited Talk*: **Brown, J.C.** (2011) *Frontiers of Exploration of the Galactic Magnetic Field*, Canadian Astronomical Society (CASCA) meeting in London, Ontario, May 30 - June 2, 2011.

14. *Conference Presentation: Brown, J.C.* (2011) *Review of Galactic Magnetism*, Workshop on Primordial Magnetism (Invitation Only), held at Arizona State University, March 30 - April 2, 2011.
13. *Colloquium: Brown, J.C.* (2010) *Visualizing the Invisible – The Story of the Galactic Magnetic Field*, University of British Columbia, Vancouver, B.C., November 15, 2010.
12. *Invited Review: Brown, J.C.* (2010) *The Magnetic Field of the Milky Way Galaxy*, The Dynamic ISM: A celebration of the Canadian Galactic Plane Survey, Naramata, British Columbia, June 6-10, 2010. Proceedings published in the Astronomical Society of the Pacific Conference Series, January 2011.
11. *Invited Talk: Brown, J.C.* (2008) *Exploring Galactic Magnetism*, Session on Canadian Women in Physics, AAPT 2008 Summer meeting, Edmonton, Alberta July 19-23, 2008.
10. *Invited Talk: Haverkorn, M. & Brown, J.C.* (2008) *Large-Scale Structure of the Galactic Magnetic Field CMB Polarization: Theory and Foregrounds* workshop, Fermilab, Illinois June 23-26, 2008. In addition to the talk, we wrote a contribution to the CMBPol Foreground Science report on the Structure of the Galactic Magnetic field.
9. *Invited Talk: Brown, J.C.* (2007) *Global Models of the Galactic Magnetic Field*, URSI North American Radio Science Meeting, Ottawa, Ontario, July 22-26, 2007.

I accepted an invitation to present a talk on the Galactic Magnetic Field at an IAU symposium that was to be held in Cape Town, South Africa in 2014 [invited by Roy Booth]. The symposium was not successful in its bid to the IAU. Although the symposium proceeded outside of the IAU, I declined to present in that forum.

In addition, I declined invited talks at the following meetings: “Cosmic Magnetism: From Stellar to Intergalactic Scales” [invited by George Hobbs] held in Kiama, Australia (2010); the Canadian Astronomical Society annual meeting [invited by Rob Thacker] held in Halifax, N.S. (2010).

ORAL PRESENTATIONS (INVITED, PDF WORK). TOTAL: 8

8. *Invited Talk: Brown, J.C.* (2006) *Observations of the Galactic Magnetic Field from the International Galactic Plane Survey*, Special Session 22: Canadian Women Astronomers: Their Status & Science, American Astronomical Society 208th Meeting, Calgary, Alberta, June 4-8, 2006.
7. *Conference Presentation: Brown, J.C.* (2004) *Observations of the Galactic Magnetic Field from the International Galactic Plane Survey and Observational Evidence of the Anisotropy of the Small-Scale Field?*, presented at the invitation-only workshop on Magnetic Fields in Galaxies, held in Leiden, the Netherlands, July 5-8, 2004.
6. *Plaskett Medal Talk: Brown, J.C.* (2004) *The Magnetic Field in the Outer Galaxy*, Canadian Astronomical Society annual meeting, University of Manitoba, June 15, 2004.
5. *Colloquium: Brown, J.C.* (2004) *The Magnetic Field of the Galaxy: New Insights from the International Galactic Plane Survey*, University of Minnesota, March 5, 2004.
4. *Seminar: Brown, J.C.* (2003) *Observations of the Galactic Magnetic Field using Data from the International Galactic Plane Survey*, Hertzberg Institute for Astrophysics (Victoria), November 25, 2003.

3. *Conference Presentation: Brown, J.C. (2003) The Power of the Canadian Galactic Plane Survey for Probing the Galactic Magnetic Field*, URSI Radio Science Meeting, Columbus, Ohio, June 25, 2003.
2. *Seminar: Brown, J.C. (2003) The CGPS and the Magnetic Field of the Galaxy*, Dominion Radio Astro-physical Observatory, March 17, 2003.
1. *Colloquium: Brown, J.C. (2002) Observations of the Galactic Magnetic Field using Data from the Canadian Galactic Plane Survey*, R&G Lunch Talks, Harvard-Smithsonian Center for Astrophysics, September 27, 2002.

In addition, I declined an invited talk at “Diffuse Matter in Galaxies” [invited by Ellen Zweibel] held in Puerto Rico (2004), as I was unable to travel at that time.

ORAL PRESENTATIONS (CONTRIBUTED, INDEPENDENT CAREER). TOTAL: 22

41. *Ordog, A., Brown, J.C. (2014) Cross-Scale Correlation in the Galactic Magnetic Field*, 15th Annual meeting of the Northwest Section of the American Physical Society, held in Seattle, Washington, May 1-3, 2014.
40. *Cooper, B., Brown, J.C. (2013) The Disk-Halo Transition of the Milky Way Magnetic Field*, Canadian Astronomical Society Annual General Meeting, held in Vancouver, British Columbia, May 28 - 30, 2013.
39. Foster, T., **Brown, J.C.**, Kothes, R. (2013) *A Mean Relation Between the Warm Neutral and Magneto-Ionic Media Observed in the Canadian Galactic Plane Survey*, International EMU/POSSUM/GALFACTS Meeting, held in Penticton, British Columbia, May 20-24, 2013.
38. **Brown, J.C.** (2012) *Studies of Galactic Magnetism*, American Physical Society NW Chapter Annual Meeting, held in Vancouver, British Columbia, October 18 - 20, 2012.
37. *Van Eck, C.L., Brown, J.C., Fletcher, A., Shukurov, A. (2012) Connecting galactic magnetic fields to the interstellar medium*, Annual meeting of the DFG research unit for 1254: Magnetisation of the Interstellar and Intergalactic Media, held in Mainz, Germany, July 9-13, 2012.
36. *Van Eck, C.L., Brown, J.C., Fletcher, A., Shukurov, A. (2012) Connecting galactic magnetic fields to the interstellar medium: Looking for statistical correlations*, Canadian Astronomical Society Annual General Meeting, held in Calgary, Alberta, June 4-7, 2012.
35. Donovan, E.F. & **Brown, J.C.** (2012) *Proposals: Writing to Win*, Graduate Student Workshop for the Canadian Astronomical Society Annual General Meeting, held in Calgary, Alberta, June 4, 2012 (presented by J.C. Brown; available at: <http://www.ras.ucalgary.ca/jocat/CASCA2012/>).
34. **Brown, J.C.** (2012) *Job Talk: How to get the job you were meant to have.*, Graduate Student Workshop for the Canadian Astronomical Society Annual General Meeting, held in Calgary, Alberta, June 4, 2012; talk (available at: <http://www.ras.ucalgary.ca/jocat/CASCA2012/>).
33. *Van Eck, C.L., Brown, J.C., Fletcher, A., Shukurov, A. (2011) Statistical Properties of Magnetic Fields in Galaxies*, American Physical Society – Division for Plasma Physics meeting, Salt Lake City, Utah, November 14-18, 2011.

32. **Brown, J.C.** (2011) *Science with POSSUM in the Galactic Disk* North American EMU / POSSUM Meeting, Calgary, Alberta, June 30 - July 2, 2011.
31. Van Eck, C.L., **Brown, J.C.** (2011) *A New Empirical Model for the Large-Scale Magnetic Field of the Milky Way* UKMHD conference, London, England, June 16 - 17, 2011.
30. **Brown, J.C.** (2011) *Imaging the Invisible: Investigating the Galactic Magnetic Field*, Advanced Image Reconstruction Techniques workshop, Calgary, Alberta, April 18, 2011.
29. **Brown, J.C.**, Van Eck, C.L. (2010) *Recent Developments with the Large-scale Galactic Magnetic Field and a First Look at RMs from GALFACTS*, GALFACTS / POSSUM 2010 Workshop, Calgary, Alberta, August 16-20, 2010.
28. Van Eck, C.L., **Brown, J.C.** (2010) *Modeling the Galactic Magnetic Field using Rotation Measure Observations in the Galactic Disk from the CGPS, SGPS, and the VLA*, The Dynamic ISM: A Celebration of the Canadian Galactic Plane Survey, Naramata, British Columbia, June 6-10, 2010.
27. Rae, K.M., **Brown, J.C.** (2010) *Constraints on the Galactic Magnetic Field From the Canadian Galactic Plane Survey*, The Dynamic ISM: A Celebration of the Canadian Galactic Plane Survey, Naramata, British Columbia, June 6-10, 2010.
26. Stil, J.M., **Brown, J.C.** (2010) *The Origin and Evolution of Cosmic Magnetism*, Long Range Plan (LRP) Town Hall Meeting, Calgary, Alberta, March 9, 2010.
25. **Brown, J.C.** (2010) *Training the Astronomers of the Future*, Long Range Plan (LRP) Town Hall Meeting, Calgary, Alberta, March 9, 2010.
24. Van Eck, C., **Brown, J.C.** (2009) *The Galactic Magnetic Field as Viewed from the VLA*, 11th Annual Meeting of the Northwest Section of the American Physical Society, held in Vancouver, British Columbia, May 14-16.
23. **Brown, J.C.** (2009) *The Synthesis Telescope and the Galactic Magnetic Field; Past, Present, and Future*, Future of the DRAO Synthesis Telescope workshop, held in Penticton, British Columbia, January 12-13.
22. Stil, J., Taylor, A.R., & **Brown, J.C.** (2007) *A New Perspective on the Local Magneto-ionic ISM*, Canadian Astronomical Society Annual General Meeting, held in Kingston, Ontario, June 5-8.
21. **Brown, J.C.** (2007) *Global Structure of the Galactic Magnetic Field from the International Galactic Plane Survey*, Workshop on the Large Scale Magnetic Field of the Milky Way, held in Princeton, New Jersey, April 30 - May 2; talk presented by T.L. Landecker and M. Haverkorn.
20. **Brown, J.C.** (2007) *Global Structure of the Galactic Magnetic Field: The Impact of GALFACTS*, GALFACTS Planning Meeting, Calgary, Alberta, January 11-12.

ORAL PRESENTATIONS (CONTRIBUTED, PDF WORK). TOTAL: 7

19. Haverkorn, M., **Brown, J.C.**, Gaensler, B.M., McClure-Griffiths, N.M., Dickey, J.M., Green, A.J. (2006) *Small-scale structure in the Galactic ISM, from depolarization of polarized extragalactic sources*, Workshop on the Turbulence in the Magnetized Interstellar Medium held in Perm, Russia, September 6-8.

18. **Brown, J.C.** (2006) *Modelling the Magnetic Field of the Galaxy*, Canadian Astronomical Society Annual General Meeting, held in Calgary, Alberta, June 1-4.
17. **Brown, J.C.** (2006) *Are We There Yet? Progress in the Quest to Understand the Galactic Magnetic Field*, International Galactic Plane Survey Meeting, held in Calgary, Alberta, May 27-30.
16. Haverkorn, M., Gaensler, B., **Brown, J.**, McClure-Griffiths, N., Dickey, J., Green, A. (2004) *Enhanced Magneto-Ionic Fluctuations in the Milky Way's Spiral Arms*, The Magnetized Plasma in Galaxy Evolution conference held in Krakow, Poland, September 27–October 1.
15. **Brown, J.C.** (2004) *Magnetic Field Observations with the IGPS*, International Galactic Plane Survey Annual Meeting, held in Penticton, British Columbia, May 2-5.
14. **Brown, J.C.** (2003) *Unraveling Magnetic Mysteries using Rotation Measures of Compact Sources in the CGPS and SGPS*, International Galactic Plane Survey Annual Meeting, held in Quebec City, Quebec, May 9-12.
13. **Brown, J.C.** & Taylor, A.R. (2002) *The Galactic Magnetic Field Structure in the Outer Galaxy*, International Galactic Plane Survey Annual Meeting, held in Edmonton, Alberta, May 15-18.

ORAL PRESENTATIONS (CONTRIBUTED, GRADUATED AND UNDERGRADUATE WORK). TOTAL: 12

12. **Brown, J.C.** & Taylor, A.R. (2002) *The Magnetic Field in the Outer Galaxy (or: What I did for my Ph.D.)*, Canadian Astronomical Society Annual General Meeting held in Penticton, British Columbia, May 12-14.
11. **Brown, J.C.** & Taylor, A.R. (2001) *The Magnetic Field in the Plane of the Outer Galaxy as seen through the CGPS*, Canadian Astronomical Society Annual General Meeting, held in Hamilton, Ontario, May 26-29.
10. **Brown, J.C.** & Taylor, A.R. (2001) *The Galactic Magnetic Field from the Canadian Galactic Plane Survey*, Green Bank Workshop - 21 cm HI Survey of the Milky Way, held in Green Bank, West Virginia, May 21-23.
9. **Brown, J.C.** & Taylor, A.R. (2000) *The Magnetic Field Configuration in the Outer Region of the Galaxy*, Canadian Astronomical Society Annual General Meeting held in Vancouver, British Columbia, May 25-28; *second place "best student talk"*.
8. **Brown, J.C.** and Taylor, A.R. (2000) *Exploring the Galaxy's Magnetic Field using Rotation Measures of Point Sources*, Canadian Galactic Plane Survey Polarisation Workshop, Montreal, Quebec, May 14, 2000.
7. **Brown, J.C.** & Taylor, A.R. (1999) *Revealing the Galactic Magnetic Field in the Plane of the Galaxy*, Canadian Astronomical Society Annual General Meeting held in Halifax, Nova Scotia, June 27-30, 1999.
6. **Brown, J.C.** & Taylor, A.R. (1999) *Revealing the I/S Magnetic Field through Rotation Measure Maps of the Galactic Plane*, Canadian Galactic Plane Survey Annual Meeting held in Vancouver, British Columbia, May 13-15.

5. **Brown, J.C.**, Taylor, A.R. and Peracaula, M. (1998) *The Interstellar Magnetic Field of CXR 11*, Galactic Foreground Polarisation Workshop held in Bonn, Germany, September 7-9.
4. **Brown, J.C.** & Taylor, A.R. (1998) *Differential Faraday Rotation as a Probe of the Interstellar Magnetic Field*, Canadian Galactic Plane Survey Annual Meeting held in Kingston, Ontario, May 2-4.
3. **Brown, J.C.** & Cartledge, J.C. (1994) *Interference in Wavelength Switched CPFSK Systems with Coherent and Noncoherent Detection*, Conference on Optical Fiber Communication, held in San Jose, California, February 20-25.
2. **Brown, J.C.** & Cartledge, J.C. (1993) *Switching Induced Interference in FSK-WDM Systems*, Telecommunications Research Institute of Ontario Conference held in Peterborough, Ontario.
1. **Brown, J.C.** & Samson, J.C. (1990) *Atmospheric Gravity Waves and the Auroral Electrojet*, Canadian Undergraduate Physics Conference held in Quebec City, Quebec, November 1-4.

POSTER PRESENTATIONS (INDEPENDENT CAREER). TOTAL: 5

9. Cooper, B., **Brown, J.C.** (2012) *The Disk-Halo Transition in the Outer Milky Way*, Canadian Astronomical Society Annual General Meeting, held in Calgary, Alberta, June 4-7, 2012.
8. Van Eck, C.L., **Brown, J.C.** (2011) *A New Empirical Model for the Large-Scale Magnetic Field of the Milky Way* UKMHD conference, London, England, June 16 - 17, 2011.
7. **Brown, J.C.**, Taylor, A.R., Sunstrum, C., Aaquist, O. & Lehota, N. (2008) *The Twilight Zone - Modeling the Magnetic Transition Between the Galactic Disk and Halo*, Canadian Astronomical Society Annual General Meeting, held in Victoria, British Columbia, May 20-23.
6. Sunstrum, C., Taylor, A.R. & **Brown, J.C.** (2008) *Polarization Catalogue of the Canadian Galactic Plane Survey*, Canadian Astronomical Society Annual General Meeting, held in Victoria, British Columbia, May 20-23.
5. Jaffe, T., Banday, A.J., Aumont, J., Barbosa, D., Bernard, J.P., Boulanger, F., **Brown, J.**, and 14 others (2007) *The Large-Scale Galactic Magnetic Field*, Planck Consortium Meeting, held in Toulouse, France, June 18-20.

POSTER PRESENTATIONS (PDF WORK). TOTAL: 1

4. Haverkorn, M., Gaensler, B.M., **Brown, J.C.**, McClure-Griffiths, N.M., Dickey, J.M., Green, A.J., Staveley-Smith, L., Dickel, J.R., Wolleben, M. (2006) *Mapping Galactic Magnetism through Faraday rotation of polarized extragalactic point sources*, Conference on Mapping the Galaxy and Nearby Galaxies held in Ishigaki, Japan, June 26-30.

POSTER PRESENTATIONS (GRADUATE WORK). TOTAL: 3

3. **Brown, J.C. & Taylor, A.R. (2002)** *The Magnetic Field in the Outer Galaxy (or: What I did for my Ph.D.)*, Canadian Astronomical Society Annual General Meeting held in Penticton, British Columbia, May 12-14.
2. **Brown, J.C., Taylor, A.R., Gray, A.D., Landecker, T.L., and Dewdney, P.E. (1997)** *Wide-Field Imaging Polarimetry as a Probe of the Interstellar Medium*, Canadian Astronomical Society Annual General Meeting held in Edmonton, Alberta, June 14-17.
1. **Brown, J.C. & Cartledge, J.C. (1993)** *Interference in Wavelength Switched CPFSK Systems with Coherent and Noncoherent Detection*, Photonics '93 held in Atlanta, Georgia, September 26-29.

ADDITIONAL FORMS OF ACHIEVEMENT

- In 2012, I completed a 144 hour course in Bodydynamic Foundation training (body-psychotherapy; trainer: Lidy Evertsen).
- I was the University of Calgary's nominee for the Engineering, Medicine and Natural Sciences category for the 2003 CAGS/UMI Distinguished Dissertation Award (national thesis award).
- My job with Nortel required working in Ottawa and Montreal in a bilingual environment. While I am not fluent, my knowledge of French was sufficient for me to function well in that environment.
- I have management experience as the captain of a Nortel league softball team (The Ground Bouncers; season champions 1994, playoff champions 1995), and as the manager of a kite store in Waterton National Park (Windy Weather Kites; Summers of 1987, 1988, 1989).
- Since 1994, I have been an avid whitewater kayaker. My other interests include cross-country skiing, hiking, zumba, and karate.