tessa.vernstrom@csiro.au

www.tessavernstrom.com

Contact

CSIRO

Information

Astronomy & Space Science

26 Dick Perry ave Kensington, WA, 6101

Australia

Research Interests

Skills

Extragalactic radio sources, properties and statistics, particularly in the μ Jy and sub- μ Jy ranges; source confusion; galaxy evolution; large-scale structure; the cosmic radio background; the synchrotron cosmic web; cosmic magnetism; high-redshift source properties; radio surveys; astrostatistics; machine learning; data visualisation methods

Model fitting; likelihoods; χ^2 ; Bayesian analysis; Monte Carlo Markov Chains; error/uncertainty analysis; covariance/correlation matrices; cross and auto correlations; bootstrap & jackknife tests; stacking; Fourier transforms; power spectra; source peak finding; source fitting; catalogue construction; confusion analysis; source counts; luminosity functions; SED fitting; radio interferometry data reduction (full polarization) & imaging; Rotation Measure (RM) synthesis; QU-fitting

Employment

Bolton Fellow, 2018 - Present

CSIRO,

Astronomy & Space Science, Perth, Australia

Postdoctoral Researcher, 2015 - 2018

Dunlap Institute for Astronomy and Astrophysics,

University of Toronto, Toronto, Canada Supervisor: Professor Bryan Gaensler

Education

University of British Columbia, Vancouver, Canada

PhD, Astronomy, Sept 2011 - Aug 2015

- Thesis: The Faint Extragalactic Radio Sky
- Advisers: Professor Douglas Scott, Professor Jasper Wall

University of British Columbia, Vancouver, Canada

MSc, Astronomy, Sept 2009 - Sept 2011

- Thesis: Contribution to the Diffuse Radio Background from Extragalactic Radio Sources
- Advisers: Professor Douglas Scott, Professor Jasper Wall

University of Minnesota, Minneapolis, MN, United States

BSc, Astrophysics, December 2008

Refereed Journal Publications (1st/2nd author) As of May 2021:

Summary Statistics and 1st and 2nd author papers (full publication list given at end of CV):

Total: 25

First Author: 9 h-index: 14

Link to ADS search results - http://tinyurl.com/ybo95szx ORCID: https://orcid.org/0000-0001-7093-3875

1. Discovery of Magnetic Fields Along Stacked Cosmic Filaments as Revealed by Radio and X-Ray Emission

Vernstrom, T., Heald, G., Vazza., F., Galvin, T., West, J., Locatelli, N., Fornengo, N., Pinetti, E.

Accepted to MNRAS April 2021

doi:10.1093/mnras/stab1301

Citations: 4

2. Constraints On Large-Scale Magnetic Fields In The Intergalactic Medium Using Cross-Correlation Methods

Amaral, A.D., Vernstrom, T., Gaensler, B.M.

Monthly Notices of the Royal Astronomical Society, 503 (2021)

doi:10.1093/mnras/stab564

Citations: 1

3. Unveiling the cause of hybrid morphology radio sources

Harwood, J., Vernstrom, T., Stroe, A.

Monthly Notices of the Royal Astronomical Society, 491 (2019)

doi:10.1093/mnras/stz3069

Citations: 9

4. Differences in Faraday Rotation Between Adjacent Extragalactic Radio Sources as a Probe of Cosmic Magnetic Fields

Vernstrom, T., Gaensler, B., Rudnick, L., Andernach, H.

Astrophysical Journal, 878 (2019) doi:10.3847/1538-4357/ab1f83

Citations: 16

5. Source counts and confusion at 72-231 MHz in the MWA GLEAM survey

Franzen, T.M.O., Vernstrom, T., +24 coauthors

Publications of the Astronomical Society of Australia, 36 (2019)

doi:10.1017/pasa.2018.52

Citations: 12

6. Radio Polarization Properties of Quasars and Active Galaxies at High Redshifts

Vernstrom, T., Gaensler, B. M., Vacca, V., Farnes, J.S., Haverkorn, M., O'Sullivan, S.P. Monthly Notices of the Royal Astronomical Society, 475 (2018)

doi:10.1093/mnras/stx3191

Citations: 7

7. Limiting Magnetic Fields in the Cosmic Web with Diffuse Radio Emission

Brown, S., Vernstrom, T., Carretti, E., Dolag, K., Gaensler, B. M., Staveley-Smith, L., Bernardi, G., Haverkorn, M., Kesteven, M., Poppi, S.

Monthly Notices of the Royal Astronomical Society, 468 (2017)

doi:10.1093/mnras/stx746

Citations: 32

8. Low Frequency Radio Constraints on the Synchrotron Cosmic Web

Vernstrom, T., Gaensler, B. M., Brown, S., Lenc, E., Norris, R. P.

Monthly Notices of the Royal Astronomical Society, 467 (2017)

doi:10.1093/mnras/stx424

Citations: 38

9. Deep 3 GHz Observations of the Lockman Hole North with the Very Large Array - 2. Catalogue and μJy source properties

Vernstrom, T., Douglas Scott, J.V. Wall, J.J. Condon, W.D. Cotton, K.I. Kellermann, R.A. Perley

Monthly Notices of the Royal Astronomical Society, 462 (2016)

doi:10.1093/mnras/stw1836

Citations: 22

10. Deep 3 GHz Observations of the Lockman Hole North with the Very Large Array - 1. Source extraction and uncertainty analysis

Vernstrom, T., Douglas Scott, J.V. Wall, J.J. Condon, W.D. Cotton, R.A. Perley

Monthly Notices of the Royal Astronomical Society, 461 (2016)

doi:10.1093/mnras/stw1530

Citations: 9

11. The Deep Diffuse Extragalactic Radio Sky at 1.75 GHz

Vernstrom, T., Norris, Ray P., Scott, Douglas, Wall, J.V.

Monthly Notices of the Royal Astronomical Society, 447 (2015)

doi:10.1093/mnras/stu2595

Citations: 30

12. Deep 3 GHz Number Counts from a P(D) Fluctuation Analysis

Vernstrom, T., Douglas Scott, J.V. Wall, J.J. Condon, W.D. Cotton, E.B. Fomalont, K.I. Kellermann, N. Miller, R.A. Perley

Monthly Notices of the Royal Astronomical Society, 404 (2014)

doi:10.1093/mnras/stu470

Citations: 58

13. Contribution to the Diffuse Radio Background from Extragalactic Radio Sources

Vernstrom, T., Scott, Douglas., & Wall, J.V.

Monthly Notices of the Royal Astronomical Society, 415 (2011)

doi:10.1111/j.1365-2966.2011.18990.x

Citations: 41

Refereed Conference Proceedings

Total: 3

First Author: 1

1. The Radio Synchrotron Background: Conference Summary and Report

Singal, J. + 21 co-authors, Vernstrom, T.

PASP, 130, (2018)

doi:10.1088/1538-3873/aaa6b0

Citations: 17

2. Astronomy Below the Survey Threshold in the SKA Era

Zwart, J. + 16 co-authors, Vernstrom, T.

Proceedings of Science, Proceedings of Advancing Astrophysics with the Square Kilometre

Array, 172 (2015) PoS: AASKA14172

Citations: 10

3. Deep Source-Counting at 3 GHz

Vernstrom, T., Wall, J., V., Scott, Douglas

Proceedings of the International Astronomical Union, 306, 177-181 (2014)

 $\mathbf{doi:} 10.1017 / \mathbf{S1743921314011053}$

Published Catalogs

Total: 3

1. POGS-II ExGal catalog (Riseley+20)

Vizier online data

- 2. VLA 3GHz radio source catalog in the Lockman Hole (Cotton+18) Vizier online data
- 3. Lockman Hole North 3GHz Source Catalogue (Vernstrom+16) Vizier online data

Talks and

Summary Statistics and 5 most recent (full list given at end of CV):

Posters (Short) Invited Talks: 11

Colloquia: 9

Contributed Talks: 14

Posters: 3

1. Colloquium: Harvard CfA Clusters Seminar, Virtual, June 2021

2. Invited Talk: ASTRON Seminar, Virtual, March 2021

3. Contributed Talk: SKA Science Meeting; Virtual, March 2021

4. Colloquium: Swinburne University, Melbourne, AU Oct 2020

5. Invited Talk: Australia-ESO Joint Conference; Perth, AU. Feb 2020

6. Invited Talk: MWA Users Meeting; Arizona, US. Dec 2019

Fellowships & Awards

- CSIRO Superior Performance Award, 2020
- CSIRO Bolton Fellowship, 2018, Accepted
- SKA South Africa Fellowship, 2018, Declined
- NRAO Jansky Fellowship, 2018, Declined
- Hertfordshire Vice-Chancellor Big Data Science Fellowship, 2018 Declined

Survey Groups ASKAP: EMU (Project Scientist; Co-lead of EMU Clusters and Cosmic Web

Science Group), POSSUM (Co-lead Distant Universe Science Group); MWA:

Collaborations Galactic and Extragalactic Science Group, GLEAMX Survey; MeerKAT: MIGHTEE; LOFAR: Magnetism Key Science Program, Radio Galaxies; SKA: Continuum, Magnetism Key Science Groups.

Leadership Roles

- Project Scientist, EMU Survey (June 2020 Present)
- Co-Leader EMU Clusters & Cosmic Web Science Group (May 2019 Present)
- Co-Leader POSSUM Distant Universe Science Group (May 2020 Present)
- Leader MWA Galactic & ExtraGalactic (GEG) Science Team (Jan 2018 June 2020)

Press Releases & Articles

Total: 5

Nature Astronomy Research Highlight: Stacking the odds, June 2021

Space Australia Article: Magnetic Fields Found in Cosmic Filaments, February 2021

New Scientist Article: The universe is 2.5 billion times less magnetic than a fridge magnet, May 2019

Dunlap Institute Press Release: The Search for the Radio Cosmic Web and Large-

Scale Cosmic Magnetism Begins, April 2017

NRAO Press Release: VLA Gives Deep, Detailed Image of Distant Universe, April

2013

Telescope Proposals Total: 25 PI: 6

Primary-investigator on 2 and Co-Author on 2 GMRT proposals

Primary-investigator on 2 and Co-Author on 1 ALMA proposals

Primary-investigator on 1 and Co-author on 7 VLA proposals

Primary-investigator on 1 and Co-Author on 3 ATCA proposals

Co-Author on 3 LOFAR proposal

Co-Author on 1 MeerKAT proposal

Co-Author on 1 Gemini proposal

Co-Author on 1 Chandra proposal

Teaching & Student Supervision

Years of Teaching Experience: 8 Number of Courses as TA: 10

Number of graduate students co-supervised): 2

Number of undergraduate students (summer or senior thesis)): 4

Co-sueprvisor Western Sydney university PhD student, 2021- Present

Lecturer, ATNF Radio School (Oct 2019)

Supervisor CASS summer student research project (summer 2020/2021)

Supervisor CASS summer student research project (summer 2019/2020)

Co-supervisor University of Toronto student undergraduate senior research project (2016 – 2017)

Supervisor University of Toronto summer student research project (summer 2017)

Dunlap Instrumentation Summer School Lab/Tutorial leader (August 2016)

Guest Lecture, ASTR 309 - Galaxies (2013, 2014)

Guest Lecture, ASTR 311 - Stars and Galaxies For Arts Students (2013)

School	Course Title	Course Type		
		Tutorial	Lab	Marking
UBC	Galactic Astronomy	X		X
	Statistics for Astronomers			X
	History and Philosophy of Physics	X		X
	Stars and Galaxies For Arts Students**	X		X
	Frontiers of Astronomy			X
	Introduction to Stars and Galaxies	X	X	X
	Introduction to the Solar System	X	X	X
	Introductory Physics		X	X

**Special TA position as part of the Carl Wieman Science Education Initiative, http://www.cwsei.ubc.ca

Observing Experience

Duty Astronomer for ATCA: 2019 - Present

GMRT – remote obs. – May 2014

VLA – remote obs. – Feb 2012, Feb 2014, Feb 2019 ATCA – onsite obs. – May 2012

Participation & Peer Reviewer for Journals:

Community Service

- The Astrophysical Journal
- Monthly Notices of the Royal Astronomical Society
- Galaxies
- Publications of the Astronomical Society of the Pacific

Co-Organizer de Laeter Colloquium Series & CASS/ATNF Colloquia (May 2019 - Present)

EMU Member of ASKAP Commissioning and Early Science Team (Oct 2020 - Present)

Scientific Reader for the ATNF Time Allocation Committee (Dec 2018 - Present)

Member Curtin University Astronomy Postdoc hiring committee (Feb 2020)

Scientific Reader for the e-MERLIN Time Allocation Committee (Aug 2019)

Member CSIRO Astronomy Postdoc hiring committee (July 2019)

Member Scientific Organising Committee Jasper Wall 75th Birthday Meeting (2018)

Co-Organizer for NRAO Community days Workshop at University of Toronto (2018)

Member of Dunlap Institute Summer School admissions committee (2017)

Postdoc representative on the Dunlap Management Committee (2015 - 2017)

Member Dunlap/Gaensler Postdoc hiring committee (2015)

Volunteer Judge for undergraduate posters Chambliss Award 225th AAS Meeting (2015)

Participant in UBC (Physics and Astronomy) 3 Minute Thesis Competition (2014)

Mentor in Physics and Astronomy UBC mentorship Program (2012-2014)

Member of Canadian Astronomical Society (CASCA) 2013 Meeting Local Organizing Committee (2012-2013)

• Additionally: Lead Volunteer /Volunteer Coordinator

Co-Organizer of the CASCA Graduate Student Workshop (2013)

Judge for Astronomy Talks, Canadian Undergraduate Physics Conference (2012)

Organizer BC Astronomy Winter Retreat (2012)

Public Outreach

Astrofest WA Volunteer: Perth, WA (Feb 2019)

Public Lecture: University of Toronto (May 2017)

Summer Science Camp teacher: UBC (summer 2011 - 2014)

Public Lecture: UBC Astronomy Club (March 2012)

Public Observing Nights: UBC (Fall 2009)

Public Observing Nights: University of Minnesota (2007-2009)

Computer Software

Software (Astronomy):

• CASA, Miriad, AIPS, OBIT, WSclean, DDFacet, DS9, Aegean, Bane, PyBDSM, ASKAPSoft, WCStools, TOPCAT, Pymoresane, DDFacet, killMS, swarp, Glue, Latex

Computer Languages:

• Python, Fortran, IDL, shell/Bash/Tcsh scripting, C++

References

Prof. Bryan Gaensler

e-mail: bryan.gaensler@utoronto.ca

- Director of the Dunlap Institute
- ♦ University of Toronto; Toronto, ON, Canada

Dr. George Heald

e-mail: george.heald@csiro.au

- OCE Science Leader, CSIRO Astronomy Space Science (CASS)
- ♦ CASS; Kensington, WA, Australia

Prof. Ray Norris e-mail: Ray.Norris@westernsydney.edu.au

- Professor at Western Sydney University and CSIRO Astronomy & Space Science
- ♦ Western Sydney University; Sydney, NSW, Australia

Prof. Jasper Wall

e-mail: jvw@phas.ubc.ca

- Professor at the Department of Physics and Astronomy
- ♦ University of British Columbia; Vancouver, BC, Canada

Refereed Journal Publications (Full)

As of May 2021:

Total: 25

First Author: 9 h-index: 14

Link to ADS search results - http://tinyurl.com/ybo95szx ORCID: https://orcid.org/0000-0001-7093-3875

- 1. The eROSITA View of the Abell 3391/95 Field: The Northern Clump Veronica, A.,+20 coauthors. Vernstrom, T. Submitted to A&A May 2021
- The Evolutionary Map of the Universe Pilot Survey Norris, R., Marvil, J., Collier, J., Vernstrom, T.,+48 coauthors Submitted to PASA May 2021
- Characterization of the AARTFAAC-12 aperture array: radio source counts at 42 and 61 MHz Shulevski, A., Franzen, T.M.O, Williams, W.L., Vernstrom, T., Gehlot, B.K., Kuiack, M., Wijers, R. Submitted to MNRAS March 2021 arxiv:2103.15160
- 4. Discovery of Magnetic Fields Along Stacked Cosmic Filaments as Revealed by Radio and X-Ray Emission

Vernstrom, T., Heald, G., Vazza., F., Galvin, T., West, J., Locatelli, N., Fornengo, N., Pinetti, E.

Accepted to MNRAS April 2021

doi:10.1093/mnras/stab1301

Citations: 4

5. The Galactic Faraday Rotation Sky 2020

Hutschenreuter, S, + 10 Co-authors, Vernstrom, T., Submitted to Astronomy & Astrophysics February 2021

arxiv:2102.01709

Citations: 1

Constraints On Large-Scale Magnetic Fields In The Intergalactic Medium Using Cross-Correlation Methods

Amaral, A.D., Vernstrom, T., Gaensler, B.M.

Monthly Notices of the Royal Astronomical Society, 503 (2021)

doi:10.1093/mnras/stab564

Citations: 1

7. Low(er) frequency follow-up of 28 candidate, large-scale synchrotron sources

Hodgson, T., Johnston-Hollitt, M., McKinley, B. Vernstrom, T., Vacca, V.

Publications of the Astronomical Society of Australia, 37, e032 (2020)

doi:10.1017/pasa.2020.26

Citations: 3

8. New constraints on the magnetization of the cosmic web using LOFAR Faraday rotation observations O'Sullivan, S.P., Bruggen, M., Vazza, F., Carretti, E., Locatelli, N., Stuardi, C., Vacca, V., Vernstrom, T., Heald, G., Horellou, C., Shimwell, T.W., Hardcastle, M.J., Tasse, C., Rottgering, H.

Monthly Notices of the Royal Astronomical Society, 495 (2020)

doi:10.1093/mnras/staa1395

Citations: 18

9. The POlarised GLEAM Survey (POGS) II: Results from an all-sky rotation measure synthesis survey at long wavelengths

Riseley, C. J., Galvin T. J., Sobey, C. Vernstrom, T., +10 coauthors

Publications of the Astronomical Society of Australia, 337 (2020)

doi:10.1017/pasa.2020.20

Citations: 7

10. Unveiling the cause of hybrid morphology radio sources

Harwood, J., Vernstrom, T., Stroe, A.

Monthly Notices of the Royal Astronomical Society, 491 (2019)

doi:10.1093/mnras/stz3069

Citations: 9

11. Science with the Murchison Widefield Array: Phase I Results and Phase II Opportunities

Beardsley, A.P., + 55 co-authors, Vernstrom, T.

Publications of the Astronomical Society of Australia, 36 (2019)

doi:10.1017/pasa.2019.41

Citations: 23

12. Differences in Faraday Rotation Between Adjacent Extragalactic Radio Sources as a Probe of Cosmic Magnetic Fields

Vernstrom, T., Gaensler, B., Rudnick, L., Andernach, H.

Astrophysical Journal, 878 (2019)

doi:10.3847/1538-4357/ab1f83

Citations: 16

13. Source counts and confusion at 72-231 MHz in the MWA GLEAM survey

Franzen, T.M.O., Vernstrom, T., +24 coauthors

Publications of the Astronomical Society of Australia, 36 (2019)

doi:10.1017/pasa.2018.52

Citations: 12

14. The Intergalactic Magnetic Field Probed by a Giant Radio Galaxy

O'Sullivan, S.P., + 26 coauthors, Vernstrom, T.

Astronomy & Astrophysics, 622 (2019)

 $\mathbf{doi:} 10.1051/0004\text{-}6361/201833832$

Citations: 25

15. Radio Polarization Properties of Quasars and Active Galaxies at High Redshifts

Vernstrom, T., Gaensler, B. M., Vacca, V., Farnes, J.S., Haverkorn, M., O'Sullivan, S.P.

Monthly Notices of the Royal Astronomical Society, 475 (2018)

doi:10.1093/mnras/stx3191

Citations: 7

16. The Angular Size Distribution of μ Jy Radio Sources

Cotton, W.D., Condon, J.J., Kellermann, K.I., Lacy, M., Perley, R.A., Matthews, A., Vernstrom, T., Scott, D., Wall, J.V.

Astrophysical Journal, 856, 67C (2018)

doi:10.3847/1538-4357/aaaec4

Citations: 18

17. Limiting Magnetic Fields in the Cosmic Web with Diffuse Radio Emission

Brown, S., Vernstrom, T., Carretti, E., Dolag, K., Gaensler, B. M., Staveley-Smith, L., Bernardi, G., Haverkorn, M., Kesteven, M., Poppi, S.

Monthly Notices of the Royal Astronomical Society, 468 (2017)

doi:10.1093/mnras/stx746

Citations: 32

18. Low Frequency Radio Constraints on the Synchrotron Cosmic Web

Vernstrom, T., Gaensler, B. M., Brown, S., Lenc, E., Norris, R. P.

Monthly Notices of the Royal Astronomical Society, 467 (2017)

doi:10.1093/mnras/stx424

Citations: 38

19. A deep ALMA image of the Hubble Ultra Deep Fields

Dunlop, J.S. +35 co-authors, Vernstrom, T.

Monthly Notices of the Royal Astronomical Society, 466 (2017)

doi:10.1093/mnras/stw3088

Citations: 235

20. Deep 3 GHz Observations of the Lockman Hole North with the Very Large Array - 2. Catalogue and μ Jy source properties

Vernstrom, T., Douglas Scott, J.V. Wall, J.J. Condon, W.D. Cotton, K.I. Kellermann,

Monthly Notices of the Royal Astronomical Society, 462 (2016)

doi:10.1093/mnras/stw1836

Citations: 22

21. Deep 3 GHz Observations of the Lockman Hole North with the Very Large Array - 1. Source extraction and uncertainty analysis

Vernstrom, T., Douglas Scott, J.V. Wall, J.J. Condon, W.D. Cotton, R.A. Perley

Monthly Notices of the Royal Astronomical Society, 461 (2016)

doi:10.1093/mnras/stw1530

Citations: 9

22. The Deep Diffuse Extragalactic Radio Sky at 1.75 GHz

Vernstrom, T., Norris, Ray P., Scott, Douglas, Wall, J.V.

Monthly Notices of the Royal Astronomical Society, 447 (2015)

doi:10.1093/mnras/stu2595

Citations: 30

23. Deep 3 GHz Number Counts from a P(D) Fluctuation Analysis

Vernstrom, T., Douglas Scott, J.V. Wall, J.J. Condon, W.D. Cotton, E.B. Fomalont, K.I.

Kellermann, N. Miller, R.A. Perley

Monthly Notices of the Royal Astronomical Society, 404 (2014)

doi:10.1093/mnras/stu470

Citations: 58

24. Resolving the Radio Source Background: Deeper Understanding through Confusion

Condon, J.J., Cotton, W.D., Fomalont, E. B., Kellerman, K., Miller, N., Perley, R.A., Scott,

D., Vernstrom, T., Wall, J.V.

Astrophysical Journal, 758, 23C (2012)

doi:10.1088/0004-637X/758/1/23

Citations: 151

25. Contribution to the Diffuse Radio Background from Extragalactic Radio Sources

Vernstrom, T., Scott, Douglas., & Wall, J.V.

Monthly Notices of the Royal Astronomical Society, 415 (2011)

 $\mathbf{doi:} 10.1111/\mathrm{j.}1365\text{-}2966.2011.18990.x}$

Citations: 41

Talks and Posters (Full)

Invited Talks: 11

Colloquia: 9

Contributed Talks: 14

Posters: 3

- 1. Colloquium: Harvard CfA Clusters Seminar, Virtual, June 2021
- 2. Invited Talk: ASTRON Seminar, Virtual, March 2021
- 3. Contributed Talk: SKA Science Meeting; Virtual, March 2021
- 4. Colloquium: Swinburne University, Melbourne, AU Oct 2020
- 5. Invited Talk: Australia-ESO Joint Conference; Perth, AU. Feb 2020
- 6. Invited Talk: MWA Users Meeting; Arizona, US. Dec 2019
- 7. Invited Talk: CSIRO/ATNF Radio Interferometry Summer School; Narrabri, Au. Oct 2019
- 8. Colloquium: CSIRO Astronomy Colloquium; Sydney, Australia. Aug 2019
- 9. Contributed Talk: Astronomical Society of Australia Meeting; Brisbane, Australia. July 2010
- 10. Invited Talk: MWA Users Meeting; Rhode Island, US. June 2019
- 11. Contributed Talk: SPARCS IX; Lisbon, Portugal. May 2019
- 12. Contributed Talk: SKA Science Meeting; Manchester, UK April 2019
- 13. Contributed Talk: Jasper Wall 75th Birthday Conference; Vancouver, Canada Dec 2018
- 14. Colloquium: NRC Herzberg; Victoria, Canada. Mar 2018
- 15. Colloquium: University of British Columbia; Vancouver, Canada. Mar 2018
- 16. Invited Talk: Science at Low Frequencies; Sydney, Australia. Dec 2017
- 17. Colloquium: Queens University; Kingston, Canada. Nov 2017
- 18. **Invited Talk**: Diffuse Synchrotron Emission in Clusters of Galaxies meeting; Leiden, Netherlands. Oct 2017
- 19. Invited Talk: Canadian Radio Astronomy Workshop; Montreal, Canada. Sep 2017
- 20. Invited Talk: The Radio Synchrotron Background Workshop; Virginia, US. Jul 2017
- 21. Colloquium: Osservatorio Astronomico Cagliari; Sardinia, Italy. Jun 2017
- 22. Colloquium: INAF Radio Astronomy Institute; Bologna, Italy. Jun 2017
- 23. Contributed Talk: Science at Low Frequencies III; California, US. Dec 2016
- 24. Contributed Talk: SKA meeting; Goa, India. Nov 2016
- 25. Contributed Talk: SPARCS 2016; Goa, India. Nov 2016
- 26. Contributed Talk: ASKAP meeting; Sydney, Australia. Jun 2016
- 27. Poster: MeerKAT meeting; Stellenbosch, South Africa. May 2016

- 28. Contributed Talk: MWA Annual Project Meeting; Toronto, Canada. Dec 2015
- 29. Invited Talk: SPARCS 2015; Kruger Park, South Africa, Jul 2015
- 30. Contributed Talk: 225th AAS Meeting; Washington, US. Jan 2015
- 31. Contributed Talk: Joint UBC/SFU/TRIUMF Cosmology Meeting; Vancouver, Canada. Oct 2014
- 32. Colloquium: University of Minnesota; Minnesota, US. Oct 2014
- 33. **Invited Talk**: KICP High Energy Messengers: Connecting the Non-Thermal Extragalactic Backgrounds; Illinois, US. Jun 2014
- 34. Contributed Talk: CASCA; Vancouver, Canada. May 2013
- 35. Contributed Talk: The Modern Radio Universe; Bonn, Germany. April 2013
- 36. Poster Presentation: Cosmology for the Next Generation; Cancun, Mexico. Jan 2012
- 37. Poster Presentation: 217th AAS Meeting; Washington, US. Jan 2011.