

Chenoa Tremblay

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Professional Profile / Areas of Expertise

- 20+ years of working in corporate research and development and 8+ years experience working in academic research including radio astronomy.
- Proven management and project management skills with 10+ years managing, training, and mentoring staff and students.
- Experience with starting and maintaining international collaborations with industry and academic partners.
- Experience with using SuperComputers to analyse large radio astronomy datasets and organization of large quantities of survey information.

Academic Qualifications

June 2016 - December 2018 - Full Time

April 2015 - June 2016 - Part Time

PhD title: "A Search for Molecules at Low Frequency with the Murchison Widefield Array (MWA)"
Curtin University, School of Electrical Engineering, Computing and Mathematical Sciences, Perth Western Australia

Supervisors: Prof. Steven Tingay, Dr Natasha Hurley-Walker, Dr. Maria Cunningham & Dr. Christopher Jordan

January 2008 - July 2011

Extended Education: Non-Degree Graduate Student (Part-Time)

University of New Mexico, Department of Physics and Astronomy, Albuquerque, NM USA

September 1995 - May 1999

BA in Chemistry with Minors in Math, Sociology and Cultural Anthropology

Plymouth State University, Department of Chemistry, Plymouth, New Hampshire, USA

Academic Employment (Teaching and Research)

Jan 2019--Jan 2022 PostDoctoral Fellow

SETI Institute, Albuquerque NM, USA

Jan 2019--Jan 2022 PostDoctoral Fellow

Commonwealth Scientific and Industrial Research Organization, Perth, Western Australia

- Member of the Australian Square-Kilometre Array Pathfinder (ASKAP) Early Science & Commissioning Team
- Australian Telescope Compact Array - Duty Astronomer - Assisting observers and looking after the telescope.
- Summer Student Supervisor - Work with undergraduate students on a summer project relating to astronomy.
- Run data reduction workshops for students working with MWA data.

2019--Present Galactic Australian SKA Pathfinder All-Sky Survey in OH Project Scientist

2020--Present MWA Galactic and ExtraGalactic Science Working Group Chair

2016--Present MWA Galactic and ExtraGalactic Spectral Line Science Team Lead

2011-2015 Research Associate

International Centre for Radio Astronomy Research, Curtin University, Perth, Western Australia

- Alignment of Multiple Gaussian Components - Project Lead: Dr. Steven Tremblay
- High Mass Star Formation in Isolation - Project Lead: Dr. Andrew Walsh

2011 Research Associate

University of New Mexico, Albuquerque, NM, USA

Assisted in building and testing the first station of the Long Wavelength Array telescope as a casual employee.

1998-1999 Laboratory Teaching Assistant*Plymouth State University, Plymouth NH, USA*

Developed a new laboratory program to update and make it more interesting for students.

Industry Employment***For more detail: <https://www.linkedin.com/in/chenoa-tremblay-b6371210> *****2019-present Owner***Stellar Chemist Consulting, Perth, WA, AUS***2018 Special Projects Manager****2014--2017 Technical Manager****2011--2014 R&D Chemist and Quality Manager***MinAnalytical Laboratory Services, Perth, WA, AUS***2005--2011 Associate Analytical Scientist***Cabot Corporation Albuquerque, NM, USA***2002--2005 Associate Scientist***Xemplar Pharmaceuticals, Fall River, MA, USA***1999--2002 Assistant Scientist***Primedica/Charles River Laboratories, Worcester, MA, USA***Scholarships, Fellowships, and Achievements**

2021 Awarded cash reward extending knowledge of science to regional communities through education and outreach

2020 Awarded non-cash reward for recognition of a job well done leading the organisation of the CASS Radio School, CSIRO / Australian Telescope National Facility

2019-2021 CSIRO Early Research Career Fellowship

2019 SuperSTEM Communicator Workshop (competitive), Pawsey Supercomputing Centre

2017 ICRAR Ken & Julie Michaels Prize -- Most outstanding piece of research, Curtin University

2017 Curtin University's Innovation & Research Week Poster Display 3rd Place, Curtin University

2016 Astronomical Society of Australia Harley Wood School Travel Scholarship

2016 Australian Postgraduate Award, Curtin University

2016 Curtin University Postgraduate Scholarship, Curtin University

2015 Runner-Up O'Connor HDR Publication Award, Curtin University

2005 Bodeman Award for Scientific Excellence, Cabot Corporation

1999 Top Senior in Chemistry, Plymouth State University

1999 Top Senior for Academic Excellence Award, Plymouth State University

Journal as Reviewer

Astrophysical Journals

Journal of Geochemical Exploration

Nature Astronomy

Publications & Technical Documents*First Author:*

Tremblay, C.D., Price, D. and Tingay, S. "A Search for Technosignatures toward the Galactic Centre at 150 MHz" accepted, PASA 2021

Tremblay, C.D., Bourke, T., Green, J.A., et al "A Low Frequency Pilot Survey of Southern HII Regions in the Vela Constellation", 2021, MNRAS, Volume 510, Issue 1, pp.593-610

Tremblay, C.D., Green, J.A., Mader, S.L., Phillips, C.J. and Whiting, M. "First Search for Low-Frequency CH with a Square Kilometre Array Precursor Telescope" 2020, PASA, 37, e055 (*Journal Impact factor: 5.067*)Tremblay, C.D., Gray, M.D., Hurley-Walker, N., Green, J.A., Dawson, J., Dickey, J.M., Jones, P.A., Tingay, S.J. and Wong, O.I. "Nitric Oxide and other molecules: Molecular Modelling and Low Frequency Exploration using the Murchison Widefield Array" 2020, ApJ, 905, 65 (*Journal Impact factor: 5.745*)

Tremblay, C.D., Tingay, S.J. “A SETI Survey of the Vela Region using the Murchison Widefield Array: Orders of Magnitude Expansion in Search Space” 2020, PASA, 37, e035. (*Journal Impact factor: 5.067*) *Altmetric Media Score 1496*

Tremblay, C.D., Tickner, J., Wheeler, G., Oteri, A., Treasure, D., “PhotonAssay: Efficient & bulk gold analysis in the modern world, Paper II”. 2019, 25-27 November, AusIMM Mining Geology 2019 *Peer reviewed*.

Tremblay, C.D., Wheeler, G., Oteri, A. “PhotonAssay: Efficient & bulk gold analysis in the modern world”. 2019, 2-5 September, Australian Exploration Geoscience Conference Proceedings, Paper Number 205. *Peer reviewed*. DOI: 10.1080/22020586.2019.12073071

Tremblay, C.D. “PhotonAssay: Bringing Gold to the Light”, 2018, 2&3 August, Gold18@Perth Geosymposium, Australian Institute of Geoscientists, Conference Proceedings. Bulletin No 68 *Peer Reviewed*

Tremblay C. D., Jordan C. H., Cunningham M., Jones P.A., Hurley-Walker, N. “Low Frequency Carbon Recombination Lines in the Orion Molecular Cloud Complex” 2018, PASA, 35, e018 (*Journal Impact factor: 4.630*)

Tremblay C. D., Jones P.A., Cunningham M., Jordan C. H., Hurley-Walker N. “A Molecular Line Survey around Orion at Low Frequencies with the MWA” 2018, ApJ, 860,145 (9pp) (*Journal Impact factor: 5.533*)

Tremblay, C. D., Hurley-Walker, N. et al. “A First Look for Molecules between 103 and 133 MHz using the Murchison Widefield Array” 2017, MNRAS, 471,4,p.4144-4154 (*Journal Impact factor: 4.961*) *Altmetric Media Score 28*

Tremblay, C. D, Walsh, A., Longmore, S., Urquhart, J., Konig C., “A search for High Mass Stars Forming in Isolation using CORNISH & ATLASGAL ” 2015, PASA, 32, 47 (*Journal Impact factor: 4.630*)

Tremblay C. D. and Gibson A. “VLBI Observations of Compact Objects at 1.4GHz” Published NRAO student project website May, 2011

Co-Author:

Dempsey, J. et al. “GASKAP-HI Pilot Survey Science III: An unbiased view of cold gas in the Small Magellanic Cloud” under review PASA 2021

Ingallinera, A. et al. “Evolutionary Map of the Universe (EMU): discovering 18-cm OH maser sources in ASKAP continuum images of the SCORPIO field” under review MNRAS Letters 2021

Velović, V., Filipović M. D., Barnes L., Norris R. P., **Tremblay C. D.** et al. “AGN jets in the nearby elliptical galaxy NGC 2663” under review MNRAS 2021

Dickey, J.M. et al “GASKAP Pilot Survey Science II: ASKAP Zoom Observations of Galactic 21-cm Absorption” accepted ApJ 2021

Pingel, N.M. et al “GASKAP-HI Pilot Survey Science I: ASKAP Zoom Observations of HI Emission in the Small MagellanicCloud” accepted PASA 2021

J. Camilo Zapata, A-M Syme, K. N. Rowell et al. “Computational Infrared Spectroscopy of 956 Phosphorus-bearing Molecules” 2021, Front. Astron. Space Sci, doi: 10.3389/fspas.2021.639068 (invited article) (*Journal Impact factor: 0.605*)

Moss, V. A.; Adcock, M; Hotan, A. W.; Kobayashi, R.; Rees, G. A.; Siegel, C.; **Tremblay, C. D.**; Trenham, C. E.; “Forging a path to a better normal for conferences and collaboration” Nature Astronomy, Invited Comment Article 2021 DOI: 10.1038/s41550-021-01325-z (*Journal Impact factor: 11.518*)

C.S. Anderson, G. Heald, J. A. Eilek, E. Lenc, B. M. Gaensler, et al. “Early Science from POSSUM: Shocks, turbulence, and a massive new reservoir of ionized gas in the Fornax cluster”, 2021, PASA, 38, e020 (*Journal Impact factor: 5.067*)

D. McConnell, C. L. Hale, E. Lenc, J. K. Banfield, et al. “The Rapid ASKAP Continuum Survey I: Design and First Results” 2020, PASA, 37, E048. (*Journal Impact factor: 5.067*)

A. P. Beardsley, M. Johnston-Hollitt, C. M. Trott, J. C. Pober, J. Morgan, D. Oberoi, D. L. Kaplan, C. R. Lync, G. E. Anderson, P. I. McCauley, S. Croft, C. W. James, O. I. Wong, **C. D. Tremblay**, et al. “Science with the Murchison Widefield Array: Phase I Results and Phase II Opportunities” 2019, PASA, 36, e050 (*Journal Impact factor: 5.067*)

Tingay S.J., **Tremblay C.D.**, and Croft S. “A search for ExtraTerrestrial Intelligence (SETI) toward the Galactic Anticenter with the Murchison Widefield Array” 2018, ApJ, 856,31T (*Journal Impact factor: 5.533*)

Tingay S.J., **Tremblay C.D.**, Walsh A., and Urquhart R., “An Opportunistic Search for ExtraTerrestrial Intelligence (SETI) with the Murchison Widefield Array” 2016, ApJ Letters, 827, 2, L22, 5. (*Journal Impact factor: 8.955*)

Tremblay, S. Taylor, G. B. Ortiz, A. A. **Tremblay, C. D.** et.al. “Compact Symmetric Objects and Supermassive Binary Black Holes in the VLBA Imaging and Polarimetry Survey” 2016, MNRAS, 459, 820 (*Journal Impact factor: 4.961*)

Technical Documents:

Green, J.A. et al “Parkes Ultra-high Band Receiver Science Case” Australian Telescope National Facility Technical Documents 2021

Moss, V. A.; Hotan, A. W.; Kobayashi, R.; Rees, G. A.; Siegel, C.; **Tremblay, C. D.** et al. “The Future of Meetings: Outcomes and Recommendations”, 2020, Zendo, doi:10.5281/zenodo.4345562

Green, J.A. et al “Parkes Future Science Case:2020 onward” Australian Telescope National Facility Technical Documents 2020

https://www.parkes.atnf.csiro.au/observing/documentation/ParkesScience2020_2030_19062020.pdf

ASKAP Early Science & Commissioning Team Members “ASKAP Science Observation Guide” Australian Telescope National Facility Technical Documents 2019 <https://www.atnf.csiro.au/projects/askap/index.html>

Tremblay C. D., Tremblay S.E., and Craig J. “Complete Guide to Antenna Assembly” Long Wavelength Array, University of New Mexico, technical note July, 2011

Tremblay C. D., Tremblay S.E., and Craig J. “Making Connec-Connec RFI Shielded Cables” Long Wavelength Array, University of New Mexico, technical note July, 2011

Invited Presentations

Workshop	OzGrav ECR Workshop: Improving virtual collaboration	Virtua, Internationall	Nov 2021
Presentation	ECR Virtual Visiting Astronomer at Caltech	Pasadena, CA, USA	June 2021
Workshop	STAWA Future of Science	Perth, WA, AUS	Dec 2020
Presentation	ASTRON Lunch Talk	Virtua, Netherlands	Oct 2020
Seminar	Traveling Researcher: CSIRO	Marsfield, NSW,AUS	Jan 2020
Presentation	AusIMM Mining Geology 2019	Perth, WA, AUS	Nov 2019
Presentation	2019 CSIRO Radio Astronomy School	Narrabri, NSW, AUS	Sept 2019
Presentation	AEGC2019: Data to Discovery	Perth, WA, AUS	Sept 2019
Panel	HarleyWood School of Astronomy	Brisbane, QLD, AUS	July 2019
Seminar	University of Western Aus.	Perth, WA, AUS	Feb 2019
Presentation	Exploration Geochemistry	Perth, WA, AUS	Dec 2018
Presentation	Geochemistry Symposium	Perth, WA, AUS	Aug 2018
Presentation:	RACI Member Meeting	Perth, WA, AUS	Feb 2018
Presentation:	MWA-GEG Busy Week	Perth, WA, AUS	Jan 2018

Professional Memberships & Certifications

- 2021 — present: Junior Member International Astronomical Union
- 2021 — present: Member SKA science working group - Our Galaxy & Cradle of Life
- 2015 — present: Member of the Astronomical Society of Australia
- 2012 — present: Lead Auditor Certified for NATA and ISO Standards (Australia)
- 2012 — present: Quality Management System development & implementation
- 2016 — 2019: Member of the The Royal Australian Chemical Institute
- 2009 — 2011: Member of the American Chemical Society