Publication list:

Key:
Each publication is numbered (value in square brackets, as used throughout the CV), followed by a number of symbols which indicate my contribution to that paper. These symbols have the following meanings:

α = First author paper.
β = Significant co-author, meaning contributed significantly to the paper or analysing, calibrating, imaging the observational data or providing simulations which the paper is based on. Each of these papers has a short summary of my contribution after the paper information.
δ = Methanol Multibeam (MMB) related papers. I am a member of the MMB collaboration and contributed to that project and these publications both scientifically and as a part of the data analysis and observation teams. To date this collaboration has produced ***16 publications with 989 total citations***.
ϕ = Conference proceedings.

Papers with >50 citations are coloured **green** and papers with >100 citations are coloured **purple**. All papers appear in peer-reviewed journals. Conference proceedings are assessed by the conference Scientific Organising Committee.

Peer-reviewed articles and Conference Proceedings

2021

[1] (In Press) Barnes, A.T. et al., *ALMA-IRDC: Dense gas mass distribution from cloud to core scales.* 2021, Accepted for publication in MNRAS, arXiv:2103.09122.
[2] α : Avison A. et al., *Continuity of accretion from clumps to Class 0 high-mass protostars in SDC335.* 2021, Astronomy & Astrophysics, 645, A142, 24 pp

2020

[3] β : Jones, B. M. et al*., The evolutionary status of protostellar clumps hosting class II methanol masers.* 2020*,* MNRAS, 493, 2015-2041.
(Scientific input to the final paper, analysis assistance and mentorship of the first author.)
[4] β : Andriantsaralaza, M. et al., *CO in the C1 globule of the Helix nebula with ALMA***,** 2020, MNRAS, 491 758-772.
(Data calibration and processing as well as tuition of the lead author in data analysis and exploration techniques.)

2019

[5] β : Barnes, A. T. et al., *Young massive star cluster formation in the Galactic Centre is driven by global gravitational collapse of high-mass molecular clouds.* 2019, MNRAS 486 283-303.
(Scientific input to the final paper, data reduction and analysis assistance and tuition to the first author.)
[6] ϕ : Starrfield et al., *ALMA studies of CK VUL (1670) imply that it is the consequence of a white dwarf-brown dwarf merger,* 2019. American Astronomical Society, HEAD meeting #17, id.112.30

2018

[7] β : Eyres, S. P. S., *ALMA reveals the aftermath of a white dwarf-brown dwarf merger in CK Vulpeculae,* 2018*,* MNRAS 481 4931-4939.
(Data calibration and imaging, interferometric/ALMA technical expertise).
[8] β : Lykou, F.et al., *The curious case of II Lup: a complex morphology revealed with SAM/NACO and ALMA*, 2018, MNRAS 480 1006-1021.
(Data calibration and imaging, interferometric/ALMA technical expertise).
[9] β : van Hoof, P. A. et al., *The Real-Time Evolution of V4334 Sgr*. 2018, Galaxies, vol. 6, issue 3, p.79.
(Data calibration and imaging, interferometric/ALMA technical and data analysis expertise).
[10] β : Williams, G. M. et al., *Gravity drives the evolution of infrared dark hubs: JVLA observations of SDC13*, 2018, Astronomy & Astrophysics, 613, A11, 26 pp.
(Scientific and interferometric data analysis and imaging expertise, particularly combining interferometric with single dish radio observations).
[11] δ : Breen, S. L. et al., *The 6-GHz Multibeam Maser Survey - III. Comparison between the MMB and HOPS.* 2018, MNRAS, 474 3898-3911.
[12] ϕ : Cunningham, N. et al., *Exploring the Nature of MMB sources: A Search for Class I Methanol Masers and their Outflows,* 2018, Proceedings of the International Astronomical Union, IAU Symposium, Volume 336

2017

[13] β : Healy, F. et al., *Multi-epoch radio imaging of γ-ray Nova V959 Mon*., 2017, MNRAS, 469, 3976-3983.
(Provided significant effort in generating accurate eMERLIN simulations, which allow for the analysis conducted in this paper).
[14] δ : Green, J. A. et al., *The 6-GHz multibeam maser survey - II. Statistical analysis and Galactic distribution of 6668-MHz methanol masers*. 2017, MNRAS, 469, 1383-1402.
[15] β : Henshaw, J. D. et al., *Unveiling the Early-Stage Anatomy of a Protocluster Hub with ALMA*. 2017, MNRAS Letters, 464, L31-L35.
(ALMA data analysis expertise leading to the creation of publication worthy data/astronomical images).
[16] ϕ : Van de Steene, G. C. et al., *The very fast evolution of Sakurai's object*, 2017, IAU Symposium Volume 323, pp. 380-381

2016

[17] α, δ : Avison, A. et al., *Excited-state hydroxyl maser catalogue from the methanol multibeam survey - I. Positions and variability.* MNRAS, 461, 136-155
[18] β : McGuire, C. et al., *The structure and early evolution of massive star forming regions - Substructure in the infrared dark cloud SDC13*. 2016, Astronomy & Astrophysics, 594, A118, 13 pp.
(Provided significant effort in generating SMA telescope simulations, which are used in the analysis conducted in this paper).
[19] δ : Breen, S. L. et al., *12.2-GHz methanol maser Methanol Multibeam follow-up catalogue - IV. Longitude range 20°-60°.* 2016, MNRAS, 459, 4066-4087
[20] β : Geach, J. et al., *ALMA observations of Lyman-alpha Blob 1: halo sub-structure illuminated from within*. 2016, Astrophysical Journal, 832, id. 37, 7 pp.
(ALMA data analysis, combination and processing expertise).

2015

[21] β : McDonald, I. et al., *ALMA reveals sunburn: CO dissociation around AGB stars in the globular cluster 47 Tucanae.* 2015, MNRAS, 453, 4324-4336

[22] δ **: Breen, S. L. et al.,** ***The 6-GHz methanol multibeam maser catalogue - V. Galactic longitudes 20°-60°.*** 2015, MNRAS 450 4109-4136
[23] **ALMA Partnership; (248 authors).** ***The 2014 ALMA Long Baseline Campaign: An Overview.*** 2015, Astrophysical Journal Letters, 808, L1.
(Member of the international ALMA team).
[24] α : Avison, A. et al., *Tightening the belt: Constraining the mass and evolution in SDC335.* 2015, Astronomy & Astrophysics, Volume 577, A30, 10 pp.
[25] ϕ : Fuller, G. A., *Filaments and Massive Clumps: Probing The Initial Conditions for Massive Star Formation,* 2015, IAU General Assembly, Meeting #29, id.2257928
[26] ϕ : Fuller, G. A., *Identifying the Initial Conditions for the Formation of Stellar Clusters,* 2015, IAU General Assembly, Meeting #29, id.2257306

2014

[27] δ : Breen, S. L. et al., *12.2-GHz methanol maser Methanol Multibeam follow-up catalogue - III. Longitude range 10° -20°.* 2014, MNRAS 438, 3368-3382

2013

[28] β **: Peretto, N. et al.,** ***Global collapse of molecular clouds as a formation mechanism for the most massive stars.*** 2013, Astronomy & Astrophysics, Volume 555, id.A112, 10 pp.
[29] δ : Gallaway, M. et al., *The mid-infrared environments of 6.7 GHz methanol masers from the Methanol MultiBeam Survey.* 2013, MNRAS, 430, 808-821
[30] α : Avison, A. & George, S.J., *A graphical tool for demonstrating the techniques of radio interferometry.* 2013, European Journal of Physics, Vol. 34 Issue 1. pp. 7.

2012

[31] δ : Breen, S. L. et al., *12.2-GHz methanol maser Methanol Multibeam follow-up catalogue - II. Longitude range 186°-330°.* 2012, MNRAS, 426, 2189-2207
[32] δ : Breen, S. L. et al., *12.2-GHz methanol maser Methanol Multibeam follow-up catalogue - I. Longitude range 330°-0°.* 2012, MNRAS, 421, 1703-1735
[33] δ **: Green, J. A. et al.;** ***The 6-GHz methanol multibeam maser catalogue - IV. Galactic Longitudes 186° - 330° including the Orion-Monoceros region.*** 2012, MNRAS, 420, 3108-3125
[34] ϕ : Green, J. A. et al., *Tracing major structures of the inner Galaxy with 6.7-GHz methanol masers,* 2012, Assembling the Puzzle of the Milky Way, EPJ Web of Conferences, Volume 19, id.06007

2011

[35] δ **: Caswell, J. L. et al.,** ***The 6-GHz methanol multibeam maser catalogue - III. Galactic Longitudes 330° to 345°.*** 2011, MNRAS, 417, 1964-1995.
[36] β : Heywood, I, Avison, A. & Williams, C.J., *The ALMA Observation Support Tool*. to appear in the proceedings of Astronomy with Megastructures: Joint Science with the E-ELT and SKA. *(Since its initial release in 2011 developed by I. Heywood, I have been solely responsible for the management and development of the OST. For more information on the OST see User Support Duties under Appointments held).*
[37] δ : Breen, S. L. et al., *Statistical Properties of 12.2 GHz Methanol Masers Associated with a Complete Sample of 6.7 GHz Methanol Masers*. 2011, Astrophysical Journal 733, 80.
[38] δ **: Green, J. A. et al.,** ***Major Structures of the Inner Galaxy Delineated by 6.7 GHz Methanol***

Masers. 2011 Astrophysical Journal, 773, id. 27, 17 pp.
[39] ϕ : Avison, A., *Compact HII regions toward Methanol Maser traced sources of Massive Star Formation.* 2011. The 41st Young European Radio Astronomers Conference, id.5

2010

[40] δ **: Green, J. A. et al.,** ***The 6-GHz methanol multibeam maser catalogue - II. Galactic Longitudes 6° to 20°.*** 2010, MNRAS, 426, 2189-2207
[41] δ **: Caswell, J. L. et al.,** ***The 6-GHz methanol multibeam maser catalogue - I. Galactic Centre region, longitudes 345° to 6°.*** 2010, MNRAS, 404, 1029-1060

2009

[42] δ : Green, J. A. et al., *Star-formation masers in the Magellanic Clouds: A multibeam survey with new detections and maser abundance estimates*. 2009, IAU Symposium 256, 227-232.
[43] δ **: Green, J. A. et al.,** ***The 6-GHz multibeam maser survey - I. Techniques.*** MNRAS 392, 783-794.
[44] ϕ : Green, J. A. et al., *Star-formation masers in the Magellanic Clouds: A multibeam survey with new detections and maser abundance estimates,* 2009, Proceedings of the International Astronomical Union, IAU Symposium, Volume 256