ATNF Science

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1 November 2017

Outline

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  - *How many CASS affiliated co-authors on refereed papers for this period?*
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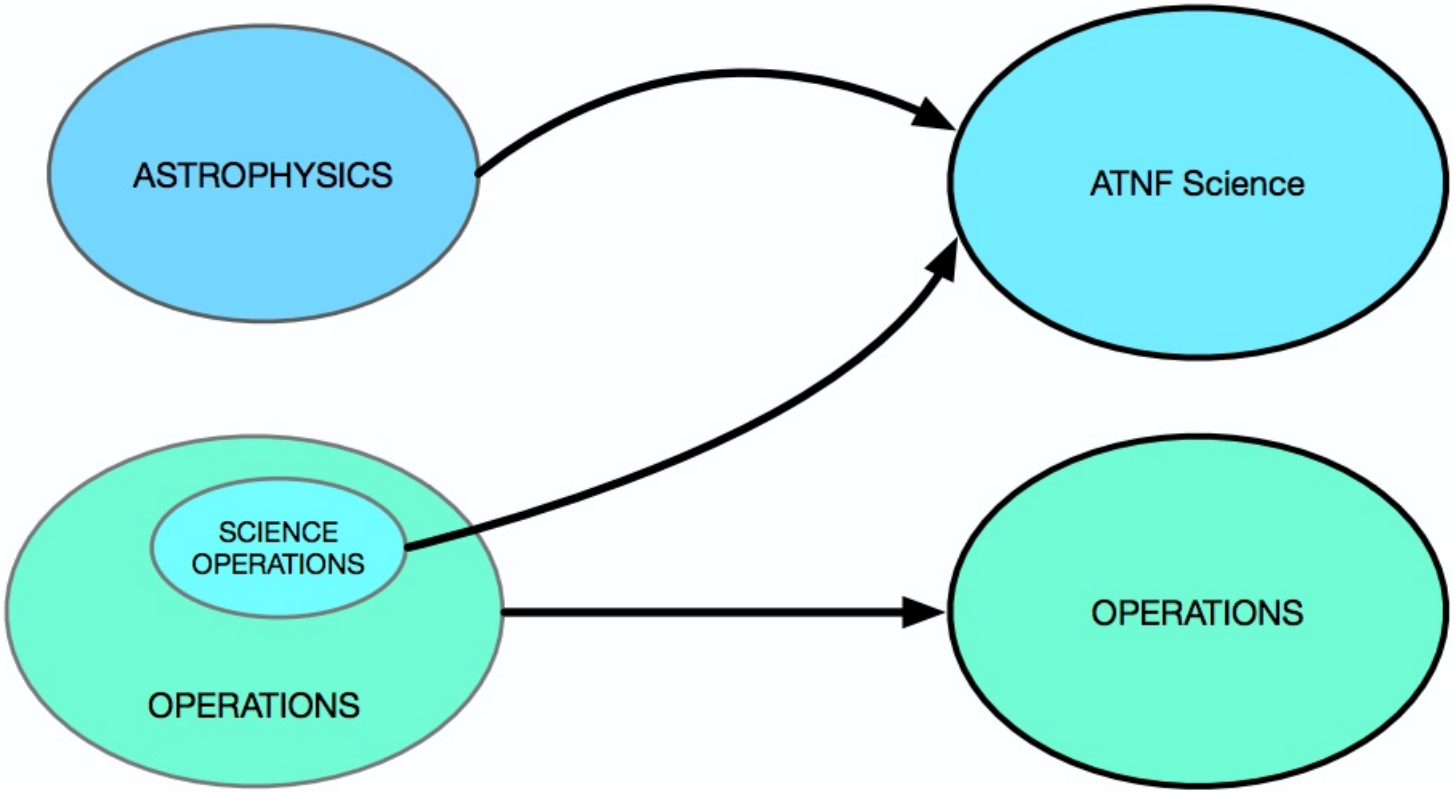
- Bolton and Student Symposium

ATNF Science



Arrivals and departures

ATNF Science has recently farewelled

- Josh Marvil
- Ryan Shannon

and has welcomed

- George Bekiaris
- Dane Kleiner and Jordan Collier

and will shortly welcome

- Jane Kaczmarek
- Shivani Bhandari
- Tim Galvin
- Andrew Cameron

Positions vacant

Senior ATNF Science staff

- Short-listed

Bolton Fellowship

- Applications closed yesterday

Research+ postdocs

- Pulsar astrophysics (https://jobregister.aas.org/ad/76a1f4c1)
- Low-freq polarimetry (https://jobregister.aas.org/ad/84179308)

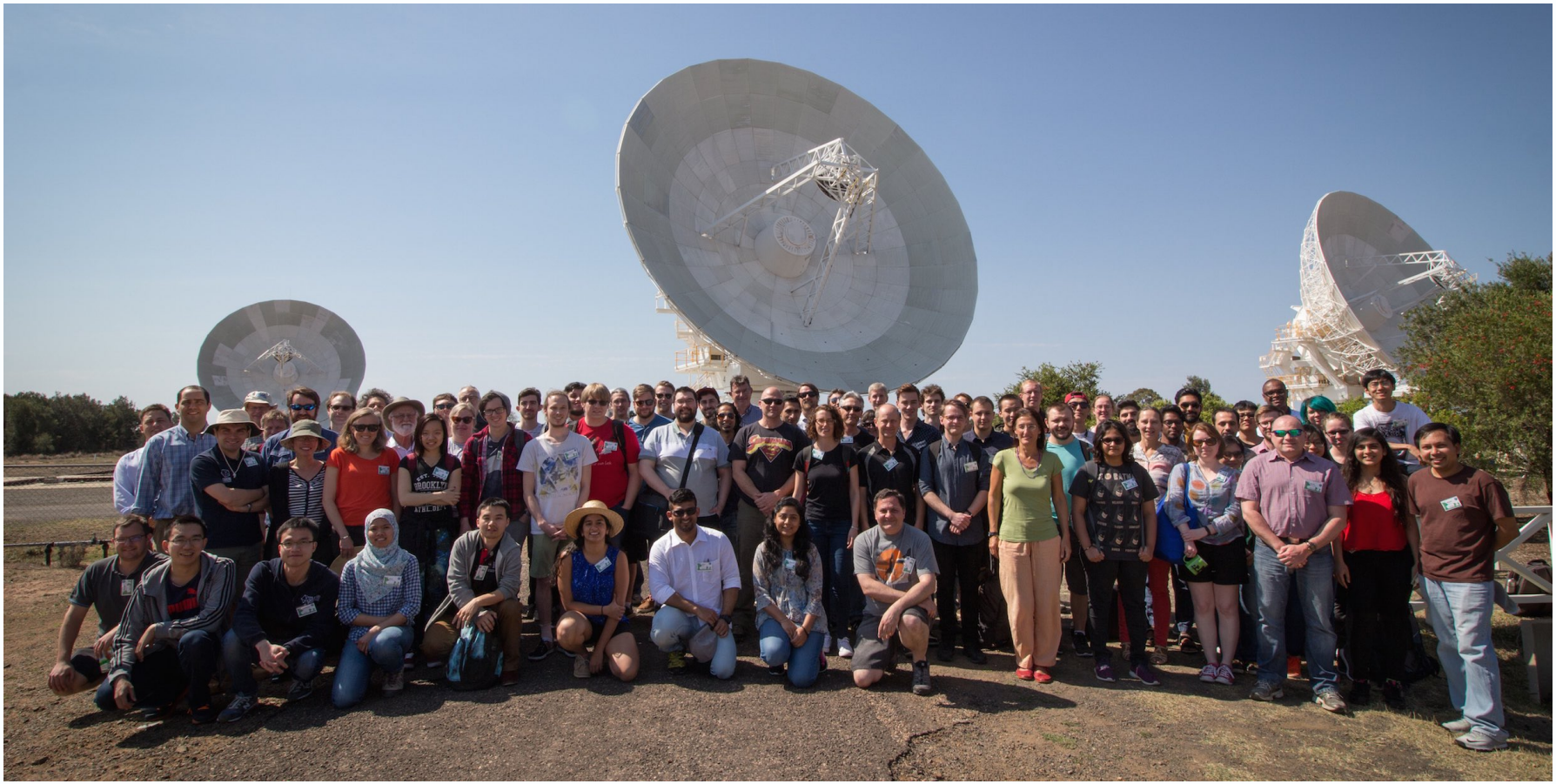
ASA Awards

Louise Webster Prize for outstanding research by a scientist early in their post-doctoral career
Awarded to Dr Keith Bannister from CSIRO for the paper 'Real-time detection of an extreme scattering event: Constraints on Galactic plasma lenses' Bannister, et al. (2016) Science, **351**, 354-356.

Charlene Heisler Prize for the most outstanding PhD thesis in astronomy … In addition, two Highly Commended awards were presented, one of which was

Emily Petroff for her thesis "The transient radio sky observed with the Parkes radio telescope" completed at Swinburne University, supervised by Willem van Straten, Matthew Bailes and Simon Johnston.

CASS Radio School 2017



2018 Radio School to be held in Western Australia.
Data reduction workshop to be held at Marsfield in 2018.

Updates

- **Tidbinbilla Host Country Time Jan – Dec 2016**
  Single Dish: T215 (9.5 h), P915 (31 h) : Total = 40.5 h
  LBA: RadioAstron (39.5 h), Other LBA with 70m (20 h),
  Other LBA with 34m (35 h) : Total = 94.5 h
  Total Host Country = 135.0 h
- **ATCA Legacy Projects**
  Legacy Projects are required to provide a short progress report, including progress with a data-release plan, after accumulating their first two full semesters of observing
- **Large Projects**
  The TAC has requested that Large Project teams provide more detail about project team and publications – more details will be given in next call for proposals

CASS Publications Analysis

- CASS produced 171 substantive publications in 2016; this represents 4.8% of CSIRO's total output in the year. More than 80% of publications are refereed journal articles.
- CASS research between 2012—16 is cited 49% more than the world average, 17% more than the Australian average and in line with the CSIRO average.
- 2.7% of the Business Unit's publications are in the top 1% of research globally (behind the CSIRO average of 3.0%), 10.0% in the top 5% and 17.0% was in the top 10%.
- More than 90% of CASS publications appear in the top quartile of Impact Factors, compared to 39% for the global average of all journals and 62% for CSIRO as a whole.

Extracted from report by CSIRO Science Impact and Policy team

Publications 2011—2016 by group

Number of staff publishing one or more refereed publications, by year and staff category

Group	Number in group	2011	2012	2013	2014	2015	2016	No. of papers	Ave. papers per staff
Astro	11	9	9	9	10	10	11	364	33.1
Postdoc	43	21	19	24	27	28	23	503	11.7
Student	63	20	24	24	26	27	25	222	3.5
Operations	49	26	20	20	32	33	37	305	6.2
Engineering	26	10	3	6	26	21	18	41	1.6
ASKAP	31	7	2	3	28	25	19	26	0.8
Executive	7	3	3	3	6	7	6	52	7.4
Fellow	14	7	4	8	8	7	7	171	12.2
Other	38	11	3	10	4	10	5	43	1.1

Publications 2011—2016 by facility

Facility	No. papers	No. cites	Ave cites	Median cites	No. papers	Ave cites	Median cites	No. papers	Ave cites	Median cites
	..... All refereed papers				.. With CASS co-author ..			.. No CASS co-author ..		
Parkes	279	7010	25.1	12	198	29.1	15	81	15.5	9
ATCA	423	7015	16.6	10	231	19.9	13	192	12.7	8
LBA	38	512	13.5	9	31	13.8	10	7	11.9	7
ASKAP	39	1146	29.4	14	31	26.2	15	8	41.6	11
Mopra	106	2133	20.1	9	41	22.7	12.5	65	18.5	7
Other	515	14928	29.0	14	-	-	-	-	-	-

Publications 2011—2016: collaboration

Facility	CSIRO only	Other Aust. only	O.S. only	CSIRO + other Aust.	CSIRO + O.S.	Other Aust. + O.S.	CSIRO + other Aust. + O.S.
Parkes	8%	5%	18%	10%	20%	6%	32%
ATCA	2%	3%	19%	7%	18%	22%	28%
LBA	2%	5%	9%	7%	25%	2%	50%
Mopra	1%	4%	25%	2%	16%	30%	33%
ASKAP	20%	8%	3%	20%	10%	10%	30%
Other	2%	-	-	6%	49%		42%

Science highlights

The Astrophysical Journal Letters, 841:L12 (6pp), 2017 May 20 https://doi.org/10.3847/2041-8213/aa71ff

The Detection of an Extremely Bright Fast Radio Burst in a Phased Array Feed Survey

K. W. Bannister[1], R. M. Shannon[1,2], J.-P. Macquart[2,3], C. Flynn[3,4], P. G. Edwards[1], M. O'Neill[3,4], S. Osłowski[4], M. Bailes[4], B. Zackay[5], N. Clarke[2], L. R. D'Addario[6], R. Dodson[7], P. J. Hall[2], A. Jameson[4], D. Jones[8], R. Navarro[9], J. T. Trinh[10], J. Allison[1], C. S. Anderson[11], M. Bell[1], A. P. Chippendale[1], J. D. Collier[1,12], G. Heald[11], I. Heywood[1,13], A. W. Hotan[1], K. Lee-Waddell[1], J. P. Madrid[1], J. Marvil[1], D. McConnell[1], A. Popping[3,7], M. A. Voronkov[1], M. T. Whiting[1], G. R. Allen[1], D. C.-J. Bock[1], D. P. Brodrick[1], F. Cooray[14], D. R. DeBoer[15], P. J. Diamond[16], R. Ekers[1], R. G. Gough[1], G. A. Hampson[1], L. Harvey-Smith[1], S. G. Hay[17], D. B. Hayman[1], C. A. Jackson[2], S. Johnston[1], B. S. Koribalski[1], N. M. McClure-Griffiths[18], P. Mirtschin[1], A. Ng[1], R. P. Norris[1,12], S. E. Pearce[1], C. J. Phillips[1], D. N. Roxby[1], E. R. Troup[1], and T. Westmeier[7]

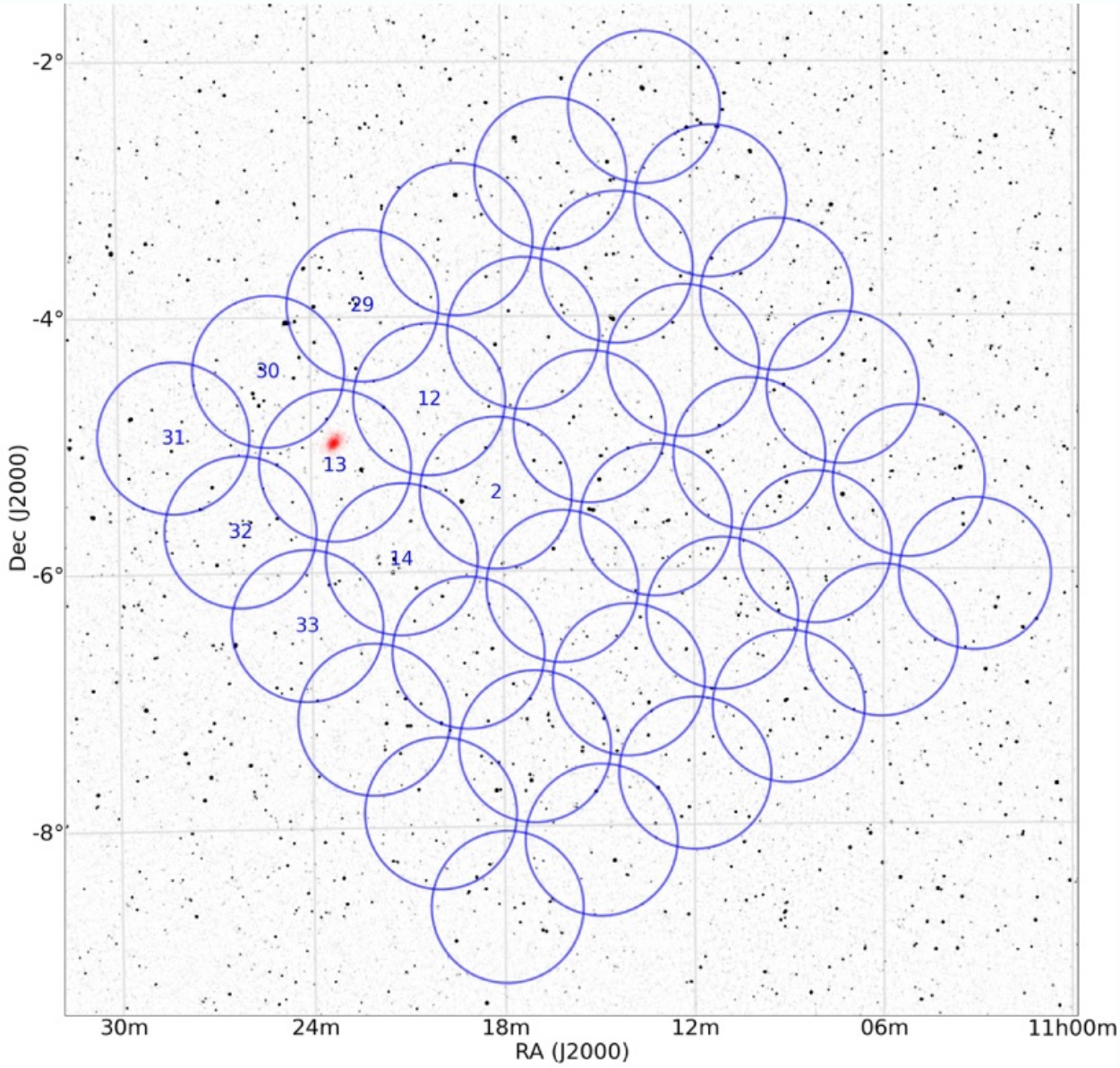
Australian Scientists Are Massive Nerds (In The Best Possible Way)

Rae Johnston
May 23, 2017, 8:15am · Filed to: ASKAP

Share

Credit: Kim Steele

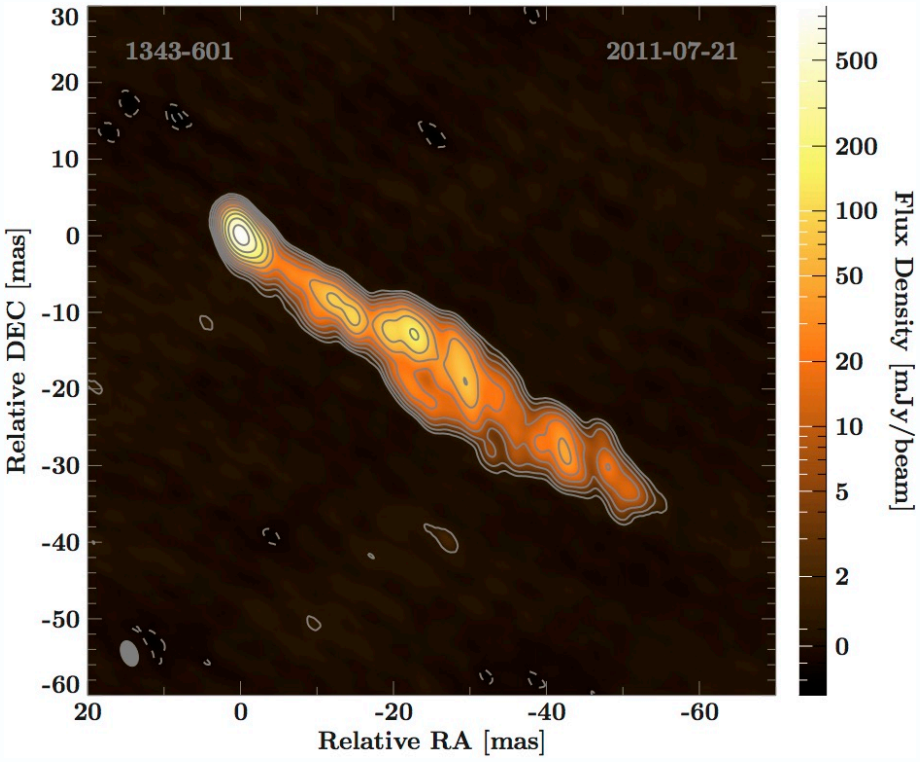
ASKAP FRB

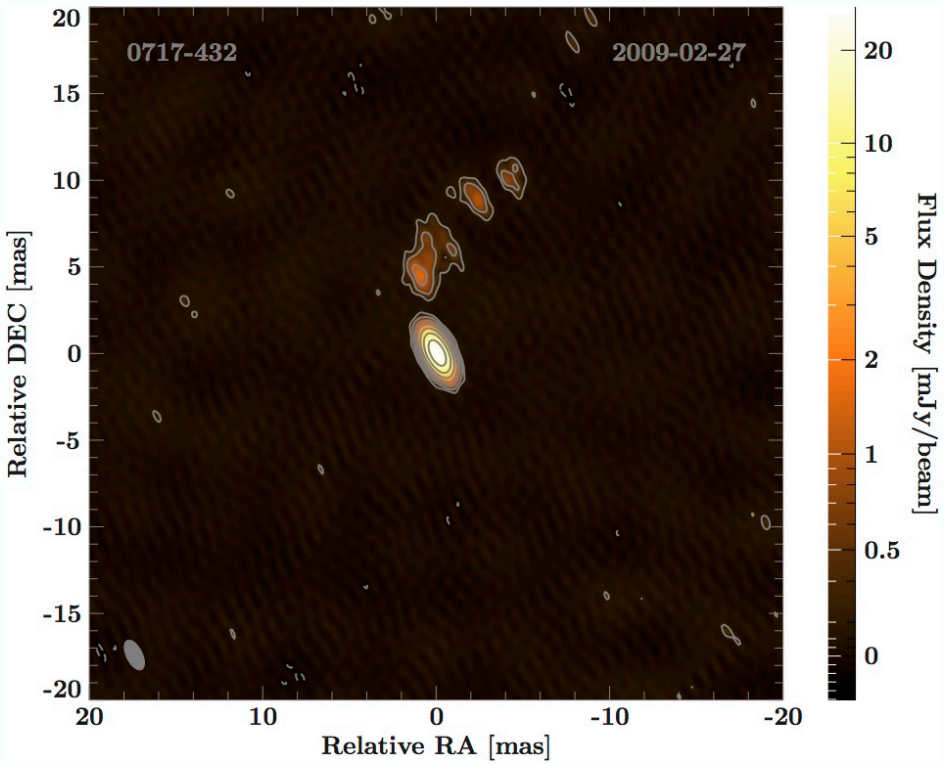

-2°
-4°
-6°
-8°
Dec (J2000)
29
30
12
31
13
2
32
14
33
30m
24m
18m
12m
06m
11h00m
RA (J2000)

LBA

- Chris Phillips is Lead Scientist for the LBA
- 10 refereed papers in 2016 (including Science and Nature Physics) – cf. ~70 papers per year from the VLBA
- No longer have access to ASKAP antenna with single pixel feed
- AuScope wide band feeds will provide additional antennas at 6.7 GHz
- Tid 70m off-line from October to mid-February for maintenance

LBA results



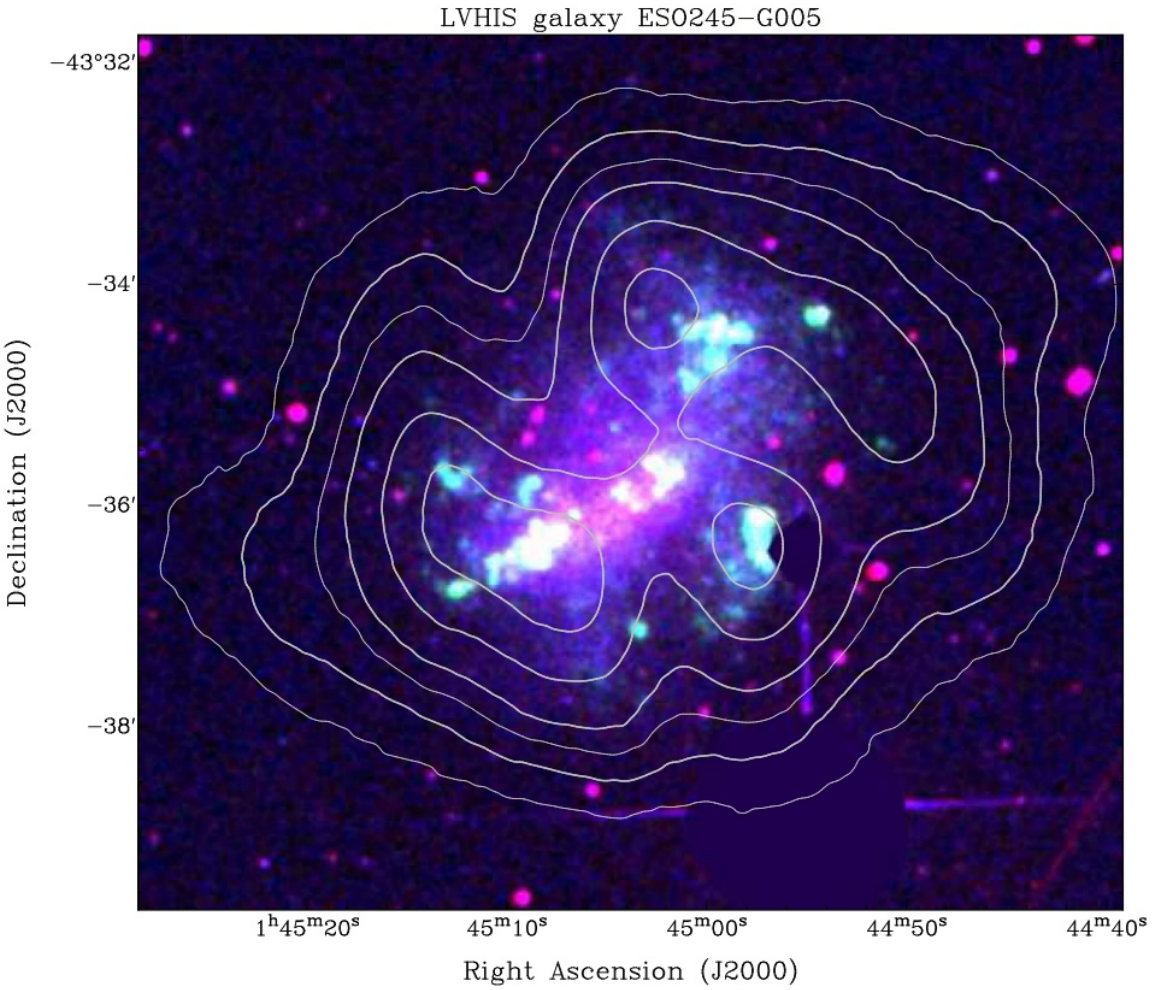


TANAMI II. Mueller et al. A&A in press, arXiv:1706.03091

Pulsar Astrophysics: The Next Fifty Years

IAU Symposium 337 - 4th-8th September 2017 - Jodrell Bank Observatory, University of Manchester

LVHIS has left the building



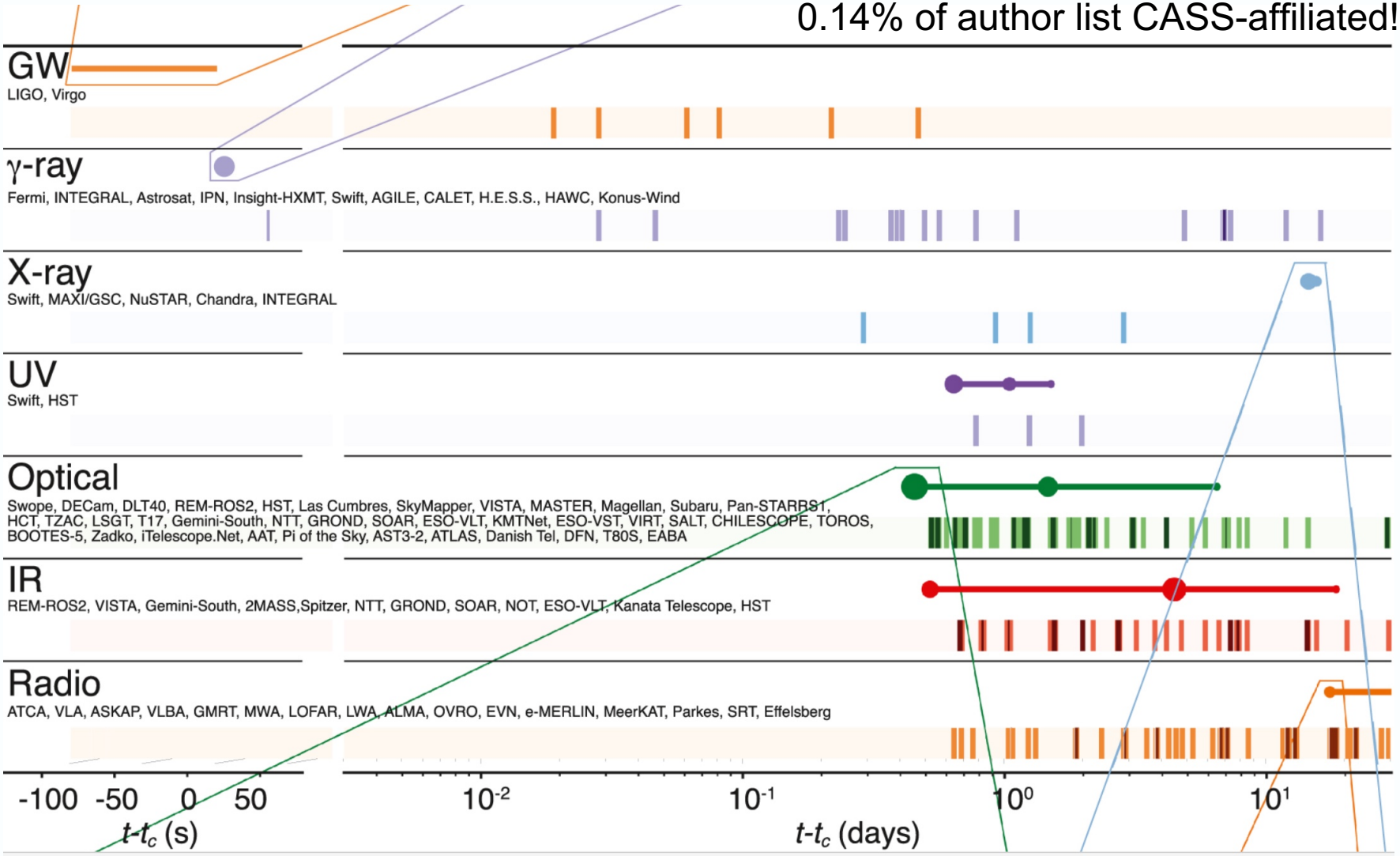
Wang et al. 2017 MNRAS 472, 3029

Figure 1. Multiwavelength image of the galaxy ESO245−G005, one of 82 nearby galaxies in the LVHIS (Koribalski et al. in preparation). The three-colour composite consists of DSS2 *R*-band (red), *GALEX* FUV (green) and DSS2 *B*-band (blue) images overlaid with ATCA H I intensity contours at 0.5, 1, 1.5, 2, 3 and 4 Jy beam^{-1} km s^{-1}. The optical and UV images were smoothed, and we masked two foreground stars.

GW170817

Abbott et al. ApJL

0.14% of author list CASS-affiliated!



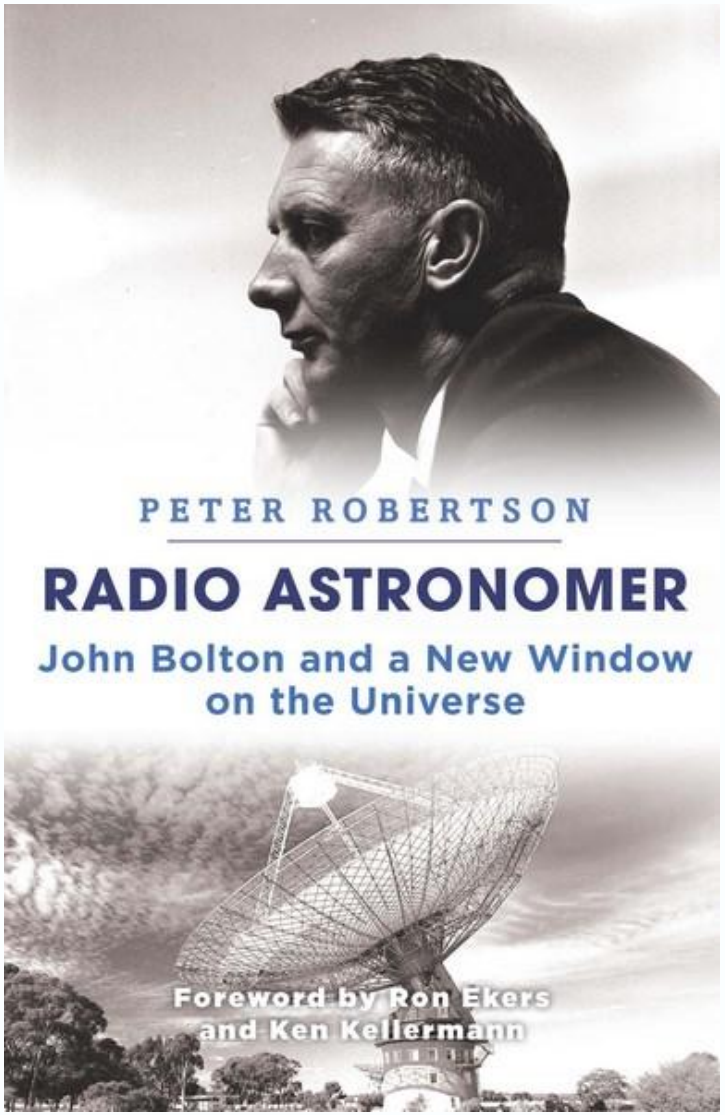
… a frenzy of global scientific activity

Image credit: Nick Moir/SMH

Kate Maguire, a physicist at Queen's University Belfast who analysed the spectrum of light from the explosion for signs of its chemistry, said that this was the first direct evidence of the alchemist's dream. "The jewellery that you might be wearing today is formed in a neutrino star merger — we can say that conclusively," she said.

Bolton Symposium

- Thursday December 7th, Marsfield
- Short-talk format (3 + 2 mins)
- The day will include the launch of Peter Robertson's biography of John Bolton



http://www.atnf.csiro.au/reasearch/conferences/2017/boltonsymp/index.html

Thank you

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We acknowledge the Wajarri Yamatji people as the traditional owners of the Murchison Radio Observatory site.