# David L. Kaplan

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#### **Research Interests:**

- Pulsars, young neutron stars, and magnetars
- White dwarfs & binaries
- Multi-wavelength/multi-messenger transients
- Radio, optical, X-ray instrumentation & signal processing
- 211 refereed papers with 8939 citations and H-index of 47 (as of 08 July 2019)

### **Employment:**

- Associate Professor, Department of Physics, University of Wisconsin-Milwaukee (2014-)
- Associate Professor L/T, Department of Astronomy, University of Wisconsin-Madison (2014-)
- Assistant Professor, Department of Physics, University of Wisconsin-Milwaukee (2010-2014)
- Assistant Professor L/T, Department of Astronomy, University of Wisconsin-Madison (2010-)
- Hubble Postdoctoral Fellow, UCSB Department of Physics (2008-2010)
- Hubble Postdoctoral Fellow, MIT Kavli Institute (2007-2008)
- Pappalardo Postdoctoral Fellow, MIT Department of Physics (2004-2007)

#### **Education:**

- Ph.D. in Astrophysics, California Institute of Technology, Pasadena, CA USA (2004)
  - Thesis title: Neutron Star Diversity: Nearby Thermally Emitting Neutron Stars and the Compact Central Objects in Supernova Remnants
  - · Advisor: Prof. S. R. Kulkarni

#### **Honors & Awards:**

- UWM Research Foundation 2018 Excellence in Research Award
- Research Corporation Scialog Time Domain Astrophysics Fellow (2015-2016)
- Milton and Francis Clauser Doctoral Dissertation Prize (Caltech; 2004)
- Hertz Foundation Fellow (1999-2004)
- Hartmann Award for Experimental Physics (Cornell; 1999)

• Goldwater Fellow (1997-1999)

### **Grants & Proposals:**

- Senior Investigator on NSF Physics Frontier Center for the North American Nanohertz Observatory for Gravitational Waves (\$14.5M, 2015-2020)
- PI on 3 NSF proposals (\$265k: 2013-2016; \$250k: 2014-2016, \$490k: 2018-2021)
- Co-PI on 3 NSF proposal (\$350k: 2010-2013; \$500k: 2018-2021; \$970k: 2018-2019)
- Co-I on NSF Partnership in International Research and Education (PIRE) proposal (\$4.5M, 2015-2020)
- PI on 5 Chandra proposals (total 243 ksec)
- PI on 5 XMM proposals (total 250 ksec)
- PI on multiple Keck, Magellan, and Gemini proposals
- PI on 4 HST proposals (total 50 orbits)
- PI on 1 Fermi proposal (total \$51k)
- Co-I on 3 Chandra Large Proposals

#### **Service & Outreach:**

- Co-Founder, Milwaukee Urban Observatory
- Co-Investigator, Community planning for Scalable Cyberinfrastructure to support Multi-Messenger Astrophysics initiative
- North American Nanohertz Observatory for Gravitational Waves (NANOGrav) Associate Member: 2014-2015; Full Member: 2016-
- Organizer of Pulsars and Transients session/Summary talk at U.S. Radio/Millimeter/ Submillimeter Science Futures II, Baltimore, MD, August 2016
- Murchison Widefield Array: Chair, Transient Science Team (2010-2018); Transient Science Team; Science/Technical Alignment Group (2007-); Project Scientist (2016-2017)
- Australia SKA Pathfinder (ASKAP) Variables and Slow Transients (VAST) collaboration work-group 6 leader (2009-2017); VAST Co-PI (2017-)
- Large Scale Synoptic Telescope (LSST) Transient Science Collaboration member (2011-)
- Scientific Organizing Committee: "Gravitational Wave Physics & Astronomy" (GWPAW; 2011)
- Constellation-X Facility Science Team Science Panel (2006)
- Peer review: NASA Astrophysics Data Analysis Program (ADAP; 2016)
- Peer reviewer: Hubble Space Telescope (2013, 2015)
- Peer reviewer: National Optical Astronomical Observatory (2015-2018)
- Peer reviewer: Green Bank Telescope, Very Large Array (2006-2007; 2013-2015)
- Peer reviewer: Chandra X-ray Observatory (2007, 2010, 2012, 2014)
- Peer review: NASA Astrophysics Theory Program (ATP; 2011)

- Co-Sponsor: "AAS High Energy Astrophysics Division (HEAD)" special session "Transient Astronomy in the Advanced LIGO Era: Electromagnetic Counter-parts to Gravitational-Wave Signals" (2011)
- Peer reviewer: Suzaku X-ray Observatory (2009)
- Peer reviewer: Astrophysical Journal, Astrophysical Journal Letters, Astronomy & Astrophysics, Monthly Notices of the Royal Astronomical Society, Nature (1999-)
- Lead, MakerFaire Milwaukee exhibit, 2016, 2017
- Advisor, UWM Astronomy Club, 2010-
- Advisor, UWM Students for the Exploration and Development of Space Club, 2011-
- Faculty Mentor, UWM Wisconsin Louis Stokes Alliance For Minority Participation
- Multiple Milwaukee Astronomical Society/Wehr Astronomical Society presentations
- Multiple presentation at Milwaukee High Schools

#### **Invited Conference Talks:**

- Invited talk at "Supernova Neutrinos in the Multi-Messenger Era, SNEWS 2.0", June 2019
- Invited talk at "Astrophysics with the CMB-S4 Survey", April 2019
- Invited panelist at 2018 Summer AAS meeting on Multi-Messenger Astrophysics, June, 2018
- Invited talk at Capitol Chats III, August, 2017
- Invited talk at American Physical Society Division of Plasma Physics conference, October 2016
- Invited talk at Ninth Harvard-Smithsonian Conference on Theoretical Astrophysics, "The Transient Sky", Boston, MA, May 2016
- Invited talk at "14th Marcel Grossman Meeting" session on "Double Neutron Stars and Neutron Star-White Dwarf Binaries"
- Invited talk at "Second Annual GMT Science Meeting on Time-Domain Astrophysics",
- Washington, DC, October 2014
- Review talk at "Physics of Neutron Stars", St. Petersburg, Russia, July 2014
- Invited talk at "2nd Radio and Antenna Days of the Indian Ocean", Mauritius, April 2014
- Invited talk at "Exascale Radio Astronomy", Monterey, CA March 2014
- Invited talk at "Latest Results from the Neutron Star Laboratory", Amsterdam, Netherlands, May 2013
- Invited talk at "13th Marcel Grossman Meeting" session on "Origin and physics of Soft Gamma-ray Repeaters and Anomalous X-ray Pulsars," Stockholm, Sweden, July 2012
- Invited talk at "Gravitational Wave Physics and Astronomy Meeting (GWPAW) 2012", Hannover, Germany, June 2012
- Review talk at "Physics of Neutron Stars", St. Petersburg, Russia, July 2011
- Invited talk at "AAS Workshop on Neutron Stars & Gravitational Waves," Boston, MA, May 2011

- Invited talk at "Canadian Institute for Advanced Research Cosmology and Gravity Programme Meeting 2010", Lake Louise, Canada, Feb 2010
- Solicited talk at "Neutron stars: timing in extreme environments", Joint Discussion at the 2009 IAU General Assembly, Rio de Janeiro, Brazil, August 2009
- Invited talk at "Frontiers of Space Astrophysics: Neutron Stars & Gamma Ray Bursts; Recent Developments & Future Directions", Cairo, Egypt, March 2009
- Invited talk at COSPAR 2008 Session E11: "Astrophysical Studies of Neutron Stars from Multi-wavelength Observations", Montreal, Canada, July 2008
- Invited talk at "40 Years of Pulsars", Montreal, Canada, August 2007 (published as *Nearby, Thermally Emitting Neutron Stars*, **D. L. Kaplan** 2008, in AIP Conference Series Vol. 983, ed. C. Bassa, Z. Wang, A. Cumming, V. Kaplan, 331–339)
- Invited talk at "Astrophysics of Compact Objects", Huangshan, China, July 2007 (published as *Nearby, Thermally Emitting Neutron Stars*, **D. L. Kaplan** 2008, in AIP Conference Series Vol. 968, ed. Y.-F. Yuan, X.-D. Li, D. Lai, 129–136)
- Invited talk at "The Neutron Star Crust and Surface", Institute for Nuclear Theory, Seattle, WA, June 2007
- Invited talk at "Neutron Star Populations", Green Bank, WV, May 2007
- Invited talk at COSPAR 2006 Session E1.4: "New High-Energy Results on Supernova Remnants and Pulsar Wind Nebulae", Beijing, China, July 2006
- Invited talk at "In Heaven and On Earth 2006: the Nuclear Equation of State in Astrophysics", Montreal, Canada, July 2006
- Invited talks at "ECT International Workshop on Neutron Stars: Structure and Cooling", Trento, Italy, September 2004
- Invited talk at "KIAS-APCTP International Symposium in Astro-Hadron Physics: Compact Stars: Quest For New States of Dense Matter", Seoul, Korea, November 2003

### Colloquia & Seminars:

- University of Amsterdam GRAPPA, November 2018
- DESY, August 2018
- Purdue University, April 2018
- NRAO Socorro, April 2018
- Nijmegen University, February 2016
- ASTRON, February 2016
- Max Planck Institute for Radioastronomy, February 2016
- Princeton University/Institute for Advanced Study, March 2015
- Goddard Space Flight Center, November 2014
- Stanford/KIPAC, April 2014
- Harvard Physics Dept., March 2014
- Sydney University/SIfA, March 2014
- University of California Santa Cruz, October 2013
- National Radio Astronomy Observatory, September 2013
- Marquette University, April 2013

- Michigan State University, November 2011
- University of Florida, October 2011
- Northwestern University, April 2011
- Brandeis University, April 2011
- Columbia University, October 2010
- University of Wisconsin Madison, April 2010
- University of Wisconsin Milwaukee, January 2009
- University of Utah, January 2008
- Penn State University, November 2007
- Netherlands Institute for Radio Astronomy (ASTRON), November 2007
- University of Sydney, April 2007
- McGill University, March 2007
- Harvard University, September 2006
- Naval Research Laboratory, November 2005
- University of Toronto, February 2005
- NRAO Charlottesville, April 2005

#### **Refereed Publications:**

1. Toward Efficient Detection of Small Near-Earth Asteroids Using the Zwicky Transient Facility (ZTF)

Quanzhi Ye et al. (including **D. L. Kaplan**)

2019, Publications of the Astronomical Society of the Pacific, 131, 078002

2. The Zwicky Transient Facility: Science Objectives

Matthew J. Graham et al. (including **D. L. Kaplan**)

2019, Publications of the Astronomical Society of the Pacific, 131, 078001

3. Towards Rate Estimation for Transient Surveys I: Assessing Transient Detectability and Volume Sensitivity for iPTF

Deep Chatterjee, Peter E. Nugent, Patrick R. Brady, Chris Cannella, **David L. Kaplan**, & Mansi M. Kasliwal

2019, Astrophysical Journal, in press, arXiv:1906.09309

4. A Strategy for LSST to Unveil a Population of Kilonovae without Gravitational-wave Triggers

Igor Andreoni et al. (including **D. L. Kaplan**)

2019, Publications of the Astronomical Society of the Pacific, 131, 068004

5. Cyberinfrastructure Requirements to Enhance Multi-messenger Astrophysics

Philip Chang et al. (including **D. L. Kaplan**)

2019, Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers, 51, 436

6. 2900 Square Degree Search for the Optical Counterpart of Short Gamma-Ray Burst GRB 180523B with the Zwicky Transient Facility

Michael W. Coughlin et al. (including **D. L. Kaplan**)

2019, Publications of the Astronomical Society of the Pacific, 131, 048001

7. The Green Bank North Celestial Cap Pulsar Survey. IV. Four New Timing Solutions R. J. Aloisi et al. (including **D. L. Kaplan**) 2019, *Astrophysical Journal*, 875, 19

8. STROBE-X: X-ray Timing and Spectroscopy on Dynamical Timescales from Microseconds to Years

Paul S. Ray et al. (including **D. L. Kaplan**)

2019, Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers

- 9. Low-frequency GMRT observations of ultra-cool dwarfs
  Andrew Zic, Christene Lynch, Tara Murphy, **David L. Kaplan**, & Poonam Chandra
  2019, *Monthly Notices of the Royal Astronomical Society*, 483, 614-623
- 10. An optimised gravitational wave follow-up strategy with the Australian Square Kilometre Array Pathfinder

D. Dobie, T. Murphy, **D. L. Kaplan**, S. Ghosh, K. W. Bannister, & R. W. Hunstead 2019, *Publications of the Astronomical Society Australia*, 36, e019

11. Spitzer Mid-Infrared Detections of Neutron Star Merger GW170817 Suggests Synthesis of the Heaviest Elements

Mansi M. Kasliwal et al. (including **D. L. Kaplan**)

2019, Monthly Notices of the Royal Astronomical Society, in press, arXiv:1812.08708

12. The Murchison Widefield Array Transients Survey (MWATS). A search for low-frequency variability in a bright Southern hemisphere sample

M. E. Bell, Tara Murphy, P. J. Hancock, J. R. Callingham, S. Johnston, **D. L. Kaplan**, R. W. Hunstead, E. M. Sadler et al.

2019, Monthly Notices of the Royal Astronomical Society, 482, 2484-2501

13. The NANOGrav 11-Year Data Set: Limits on Gravitational Waves from Individual Supermassive Black Hole Binaries

K. Aggarwal et al. (including **D. L. Kaplan**)

2019, Astrophysical Journal, in press, arXiv:1812.11585

14. In situ measurement of MWA primary beam variation using ORBCOMM

J. L. B. Line et al. (including **D. L. Kaplan**)

2018, Publications of the Astronomical Society Australia, 35, 45

- 15. A Strong Jet Signature in the Late-time Light Curve of GW170817
  - K. P. Mooley et al. (including **D. L. Kaplan**)

2018, Astrophysical Journal Letters, 868, L11

16. No Low-frequency Emission from Extremely Bright Fast Radio Bursts

M. Sokolowski et al. (including **D. L. Kaplan**)

2018, Astrophysical Journal Letters, 867, L12

17. Observations of Low-frequency Radio Emission from Millisecond Pulsars and Multipath Propagation in the Interstellar Medium

N. D. R. Bhat et al. (including **D. L. Kaplan**)

2018, Astrophysical Journal Supplement, 238, 1

18. Binary Pulsar Distances and Velocities from Gaia Data Release 2
Ross J. Jennings, **David L. Kaplan**, Shami Chatterjee, James M. Cordes, & Adam T. Deller 2018, *Astrophysical Journal*, 864, 26

- A Dense Companion to the Short-period Millisecond Pulsar Binary PSR J0636+5128
   D. L. Kaplan, K. Stovall, M. H. van Kerkwijk, C. Fremling, & A. G. Istrate
   2018, Astrophysical Journal, 864, 15
- An all-sky survey of circular polarization at 200 MHz
   Emil Lenc, Tara Murphy, C. R. Lynch, **D. L. Kaplan**, & S. N. Zhang
   2018, Monthly Notices of the Royal Astronomical Society, 478, 2835-2849
- 21. A pilot survey for transients and variables with the Australian Square Kilometre Array Pathfinder
  - S. Bhandari et al. (including **D. L. Kaplan**)

2018, Monthly Notices of the Royal Astronomical Society, 478, 1784-1794

- 22. The detectability of radio emission from exoplanets
  - C. R. Lynch, Tara Murphy, E. Lenc, & D. L. Kaplan

2018, Monthly Notices of the Royal Astronomical Society, 478, 1763-1775

23. Comparing Redundant and Sky-model-based Interferometric Calibration: A First Look with Phase II of the MWA

W. Li et al. (including **D. L. Kaplan**)

2018, Astrophysical Journal, 863, 170

24. Multi-Messenger Astrophysics: Harnessing the Data Revolution

Gabrielle Allen et al. (including **D. L. Kaplan**)

2018, Workshop Summary by the participants of the Cyberinfrastructure for Multi-Messenger Astrophysics NSF-funded Workshop

- 25. Universality of free fall from the orbital motion of a pulsar in a stellar triple system Anne M. Archibald, Nina V. Gusinskaia, Jason W. T. Hessels, Adam T. Deller, **David L. Kaplan**, Duncan R. Lorimer, Ryan S. Lynch, Scott M. Ransom et al. 2018, Nature, 559, 73-76
- 26. Limits on radio emission from meteors using the MWA
  X. Zhang et al. (including **D. L. Kaplan**)
  2018, Monthly Notices of the Royal Astronomical Society, 477, 5167-5176
- 27. An Upper Limit on the Linear Polarization Fraction of the GW170817 Radio Continuum

Dale A. Frail, Dario Carbone, David L. Kaplan et al.

2018, Astrophysical Journal Letters, 861, L10

28. The Green Bank North Celestial Cap Pulsar Survey. III. 45 New Pulsar Timing Solutions Ryan S. Lynch, Joseph K. Swiggum, Vlad I. Kondratiev, **David L. Kaplan**, Kevin Stovall, Emmanuel Fonseca, Mallory S. E. Roberts, Lina Levin et al.

Alessandra Corsi, Gregg W. Hallinan, Davide Lazzati, Kunal P. Mooley, Eric J. Murphy,

2018, Astrophysical Journal, 859, 93

The NANOGrav 11 Year Data Set: Pulsar-timing Constraints on the Stochastic Gravitational-wave Background

Z. Arzoumanian et al. (including **D. L. Kaplan**)

2018, Astrophysical Journal, 859, 47

29. A Turnover in the Radio Light Curve of GW170817

Dougal Dobie, **David L. Kaplan**, Tara Murphy, Emil Lenc, Kunal P. Mooley, Christene Lynch, Alessandra Corsi, Dale Frail et al.

2018, Astrophysical Journal Letters, 858, L15

30. The NANOGrav 11-year Data Set: High-precision Timing of 45 Millisecond Pulsars Zaven Arzoumanian et al. (including **D. L. Kaplan**) 2018, *Astrophysical Journal* Supplement, 235, 37

31. The Green Bank Northern Celestial Cap Pulsar Survey. II. The Discovery and Timing of 10 Pulsars

A. M. Kawash, M. A. McLaughlin, **D. L. Kaplan**, M. E. DeCesar, L. Levin, D. R. Lorimer, R. S. Lynch, K. Stovall et al.

2018, Astrophysical Journal, 857, 131

32. A Serendipitous MWA Search for Narrowband Signals from 'Oumuamua

S. J. Tingay, **D. L. Kaplan**, E. Lenc, S. Croft, B. McKinley, A. Beardsley, B. Crosse, D. Emrich et al.

2018, Astrophysical Journal, 857, 11

33. Reconciling Optical and Radio Observations of the Binary Millisecond Pulsar PSR J1640+2224

Sarah J. Vigeland, Adam T. Deller, **David L. Kaplan**, Alina G. Istrate, Benjamin W. Stappers, & Thomas M. Tauris

2018, Astrophysical Journal, 855, 122

34. A Gaussian Mixture Model for Nulling Pulsars

**D. L. Kaplan**, J. K. Swiggum, T. D. J. Fichtenbauer, & M. Vallisneri 2018, *Astrophysical Journal*, 855, 14

35. A mildly relativistic wide-angle outflow in the neutron-star merger event GW170817 K. P. Mooley et al. (including **D. L. Kaplan**) 2018, *Nature*, 554, 207-210

36. iPTF Archival Search for Fast Optical Transients

Anna Y. Q. Ho et al. (including **D. L. Kaplan**)

2018, Astrophysical Journal Letters, 854, L13

37. A radio counterpart to a neutron star merger

G. Hallinan, A. Corsi, K. P. Mooley, K. Hotokezaka, E. Nakar, M. M. Kasliwal, **D. L. Kaplan**, D. A. Frail et al.

2017, Science, 358, 1579-1583

38. Illuminating gravitational waves: A concordant picture of photons from a neutron star merger

M. M. Kasliwal, E. Nakar, L. P. Singer, **D. L. Kaplan**, D. O. Cook, A. Van Sistine, R. M. Lau, C. Fremling et al.

2017, Science, 358, 1559-1565

39. A Census of Southern Pulsars at 185 MHz

Mengyao Xue, N. D. R. Bhat, S. E. Tremblay, S. M. Ord, C. Sobey, N. A. Swainston, **D. L. Kaplan**, Simon Johnston et al.

2017, Publications of the Astronomical Society Australia, 34, e070

40. Follow Up of GW170817 and Its Electromagnetic Counterpart by Australian-Led Observing Programmes

I. Andreoni et al. (including **D. L. Kaplan**)

2017, Publications of the Astronomical Society Australia, 34, e069

41. Hunting Electromagnetic Counterparts of Gravitational-wave Events Using the Zwicky Transient Facility

Shaon Ghosh, Deep Chatterjee, **David L. Kaplan**, Patrick R. Brady, & Angela Van Sistine 2017, *Publications of the Astronomical Society of the Pacific*, 129, 114503

42. Calibration and Stokes Imaging with Full Embedded Element Primary Beam Model for the Murchison Widefield Array

M. Sokolowski et al. (including **D. L. Kaplan**)

2017, Publications of the Astronomical Society Australia, 34, e062

43. Census of the Local Universe (CLU) Narrow-Band Survey I: Galaxy Catalogs from Preliminary Fields

David O. Cook, Mansi M. Kasliwal, Angela Van Sistine, **David L. Kaplan**, Jessica S. Sutter, Thomas Kupfer, David L. Shupe, Russ R. Laher et al.

2019, Astrophysical Journal, in press, arXiv:1710.05016

44. Multi-messenger Observations of a Binary Neutron Star Merger

B. P. Abbott et al. (including **D. L. Kaplan**)

2017, Astrophysical Journal Letters, 848, L12

45. The Challenges of Low-Frequency Radio Polarimetry: Lessons from the Murchison Widefield Array

E. Lenc et al. (including **D. L. Kaplan**)

2017, Publications of the Astronomical Society Australia, 34, e040

46. A Multiwavelength Study of Nearby Millisecond Pulsar PSR J1400-1431: Improved Astrometry and an Optical Detection of Its Cool White Dwarf Companion J. K. Swiggum, D. L. Kaplan, M. A. McLaughlin, D. R. Lorimer, S. Bogdanov, P. S. Ray, R. Lynch, P. Gentile et al.

2017, Astrophysical Journal, 847, 25

47. The Engineering Development Array: A Low Frequency Radio Telescope Utilising SKA Precursor Technology

Randall Wayth et al. (including **D. L. Kaplan**)

2017, Publications of the Astronomical Society Australia, 34, e034

48. A Search for Fast Radio Bursts with the GBNCC Pulsar Survey

P. Chawla et al. (including **D. L. Kaplan**)

2017, Astrophysical Journal, 844, 140

49. Wavelet-based Characterization of Small-scale Solar Emission Features at Low Radio Frequencies

A. Suresh et al. (including **D. L. Kaplan**)

2017, Astrophysical Journal, 843, 19

50. A search for circularly polarized emission from young exoplanets

C. R. Lynch, Tara Murphy, D. L. Kaplan, M. Ireland, & M. E. Bell

2017, Monthly Notices of the Royal Astronomical Society, 467, 3447-3453

51. Low-Frequency Spectral Energy Distributions of Radio Pulsars Detected with the Murchison Widefield Array

Tara Murphy, **David L. Kaplan**, Martin E. Bell, J. R. Callingham, Steve Croft, Simon Johnston, Dougal Dobie, Andrew Zic et al.

2017, Publications of the Astronomical Society Australia, 34, e020

52. A search for long-time-scale, low-frequency radio transients
Tara Murphy, **David L. Kaplan**, Steve Croft, Christene Lynch, J. R. Callingham, Keith
Bannister, Martin E. Bell, Natasha Hurley-Walker et al.
2017, *Monthly Notices of the Royal Astronomical Society*, 466, 1944-1953

53. Spectral Energy Distribution and Radio Halo of NGC 253 at Low Radio Frequencies A. D. Kapińska et al. (including **D. L. Kaplan**) 2017, *Astrophysical Journal*, 838, 68

54. A Matched Filter Technique for Slow Radio Transient Detection and First Demonstration with the Murchison Widefield Array

L. Feng, R. Vaulin, J. N. Hewitt, R. Remillard, **D. L. Kaplan**, Tara Murphy, N. Kudryavtseva, P. Hancock et al.

2017, Astronomical Journal, 153, 98

154 MHz Detection of Faint, Polarized Flares from UV Ceti
 C. R. Lynch, E. Lenc, **D. L. Kaplan**, Tara Murphy, & G. E. Anderson
 2017, Astrophysical Journal Letters, 836, L30

56. GaLactic and Extragalactic All-sky Murchison Widefield Array (GLEAM) survey - I. A low-frequency extragalactic catalogue

N. Hurley-Walker et al. (including **D. L. Kaplan**)

2017, Monthly Notices of the Royal Astronomical Society, 464, 1146-1167

57. Delay Spectrum with Phase-tracking Arrays: Extracting the HI Power Spectrum from the Epoch of Reionization

Sourabh Paul et al. (including D. L. Kaplan)

2016, Astrophysical Journal, 833, 213

58. Timing of Five PALFA-discovered Millisecond Pulsars

K. Stovall et al. (including **D. L. Kaplan**)

2016, Astrophysical Journal, 833, 192

59. First Season MWA EoR Power spectrum Results at Redshift 7

A. P. Beardsley et al. (including **D. L. Kaplan**)

2016, Astrophysical Journal, 833, 102

- 60. Transient Events in Archival Very Large Array Observations of the Galactic Center Anirudh Chiti, Shami Chatterjee, Robert Wharton, James Cordes, T. Joseph W. Lazio, **David L. Kaplan**, Geoffrey C. Bower, Steve Croft et al. 2016, Astrophysical Journal, 833, 11
- 61. Strategies for Finding Prompt Radio Counterparts to Gravitational Wave Transients with the Murchison Widefield Array
  - **D. L. Kaplan**, T. Murphy, A. Rowlinson, S. D. Croft, R. B. Wayth, & C. M. Trott 2016, *Publications of the Astronomical Society Australia*, 33, e050
- 62. A high reliability survey of discrete Epoch of Reionization foreground sources in the MWA EoR0 field
  - P. A. Carroll et al. (including **D. L. Kaplan**) 2016, *Monthly Notices of the Royal Astronomical Society*, 461, 4151-4175
- 63. Low-frequency Observations of Linearly Polarized Structures in the Interstellar Medium near the South Galactic Pole
  - E. Lenc et al. (including **D. L. Kaplan**)
  - 2016, Astrophysical Journal, 830, 38
- 64. An Eccentric Binary Millisecond Pulsar with a Helium White Dwarf Companion in the Galactic field
  - John Antoniadis, **David L. Kaplan**, Kevin Stovall, Paulo C. C. Freire, Julia S. Deneva, Detlev Koester, Fredrick Jenet, Jose G. Martinez et al.
  - 2016, Astrophysical Journal, 830, 36
- 65. Photometric variability of candidate white dwarf binary systems from Palomar Transient Factory archival data
  - Wil Kao, **David L. Kaplan**, Thomas A. Prince, Sumin Tang, Irina Ene, Kyu Bin Kim, David Levitan, Shrinivas R. Kulkarni et al.
  - 2016, Monthly Notices of the Royal Astronomical Society, 461, 2747-2761
- 66. Time-domain and spectral properties of pulsars at 154 MHz
  - M. E. Bell, Tara Murphy, S. Johnston, **D. L. Kaplan**, S. Croft, P. Hancock, J. R. Callingham, A. Zic et al.
  - 2016, Monthly Notices of the Royal Astronomical Society, 461, 908-921
- 67. Microarcsecond VLBI Pulsar Astrometry with PSRπ. I. Two Binary Millisecond Pulsars with White Dwarf Companions
  - A. T. Deller, S. J. Vigeland, **D. L. Kaplan**, W. M. Goss, W. F. Brisken, S. Chatterjee, J. M. Cordes, G. H. Janssen et al.
  - 2016, Astrophysical Journal, 828, 8

- 68. First limits on the 21 cm power spectrum during the Epoch of X-ray heating A. Ewall-Wice et al. (including **D. L. Kaplan**) 2016, *Monthly Notices of the Royal Astronomical Society*, 460, 4320-4347
- 69. The 154 MHz radio sky observed by the Murchison Widefield Array: noise, confusion, and first source count analyses
  - T. M. O. Franzen et al. (including **D. L. Kaplan**) 2016, *Monthly Notices of the Royal Astronomical Society*, 459, 3314-3325
- 70. Supplement: 'Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914' (2016, ApJL, 826, L13)
  - B. P. Abbott et al. (including **D. L. Kaplan**) 2016, *Astrophysical Journal Supplement*, 225, 8
- 71. Localization and Broadband Follow-up of the Gravitational-wave Transient GW150914
  B. P. Abbott et al. (including **D. L. Kaplan**)
  2016, Astrophysical Journal Letters, 826, L13
- 72. PSR J1024-0719: A Millisecond Pulsar in an Unusual Long-period Orbit David L. Kaplan, Thomas Kupfer, David J. Nice, Andreas Irrgang, Ulrich Heber, Zaven Arzoumanian, Elif Beklen, Kathryn Crowter et al. 2016, Astrophysical Journal, 826, 86
- 73. The Murchison Widefield Array 21 cm Power Spectrum Analysis Methodology Daniel C. Jacobs et al. (including **D. L. Kaplan**) 2016, *Astrophysical Journal*, 825, 114
- 74. A new angle for probing field-aligned irregularities with the Murchison Widefield Array Shyeh Tjing Loi, Tara Murphy, Iver H. Cairns, Cathryn M. Trott, Natasha Hurley-Walker, Lu Feng, Paul J. Hancock, **David L. Kaplan** et al. 2016, *Radio Science*, 51, 659-679
- 75. Search for optical pulsations in PSR J0337+1715
  M. J. Strader et al. (including **D. L. Kaplan**)
  2016, Monthly Notices of the Royal Astronomical Society, 459, 427-430
- 76. Limits on Fast Radio Bursts and other transient sources at 182 MHz using the Murchison Widefield Array
  - A. Rowlinson, M. E. Bell, T. Murphy, C. M. Trott, N. Hurley-Walker, S. Johnston, S. J. Tingay, **D. L. Kaplan** et al.
  - 2016, Monthly Notices of the Royal Astronomical Society, 458, 3506-3522
- 77. A Large-Scale, Low-Frequency Murchison Widefield Array Survey of Galactic H ii Regions between 260 < 1 < 340

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