Curriculum Vitae Richard Teague

Contact Information	Department of Earth, Atmospheric, and Planetary Sciences Massachusetts Institute of Technology Cambridge, MA 02139, USA	(+1) 617-495-7259 https://richteague.github.io rteague@mit.edu	
EMPLOYMENT	Massachusetts Institute of Technology Department of Earth, Atmospheric and Planetary Sciences Kerr McGee Development Assistant Professor	Jul. 2022 – Present	
	Smithsonian Astrophysical Observatory Research Associate	May 2022 – Apr. 2025	
	Center for Astrophysics Harvard & Smithsonian Submillimeter Array Fellow	Sep. 2019 – Apr. 2022	
	University of Michigan Postdoctoral Researcher	May 2017 – Jul. 2019	
	Max-Planck-Institute for Astronomy Postdoctoral Researcher	Jan. 2017 – Apr. 2017	
Education	Max-Planck-Institute for Astronomy, Heidelberg, Germany Ph.D. in Astronomy (Magna Cum Laude)	Oct. 2013 – Jan. 2017	
	University of Edinburgh , Edinburgh, United Kingdom MPhys Astrophysics (First Class Honours)	Sep. 2008 – May 2013	
Honours & Awards	pH Lectureship Recognize a CfA scientist who shows exceptional promise early in their career.	Sep. 2022	
	Harvard Data Science Initiative Research Fund (\$9,700) Regularized Maximum Likelihood Imaging: A New Method for Detecting Planets	Mar. 2020	
	Ernst Patzer Award Awarded for the best refereed publication by a young scientist.	Nov. 2016	
	Pre-Honours Certificate of Merit Awarded for top 5% performance in pre-honours exams.	May 2011	
	Pre-Honours Certificate of Merit Awarded for top 5% performance in pre-honours exams.	May 2010	
PUBLICATION SUMMARY	20 lead author papers , including one published in <i>Nature</i> , and 74 co-author papers, totaling 2683 citations (ADS). A full publication list, including those currently under review, can be found at the end of the CV.		
OBSERVATIONAL TIME SUMMARY	I have been awarded over 332 hours (480 hours) of time on ALMA as PI (co-I), including as the exoALMA Large Program of which I am PI, 20 hours (165 hours) on IRAM telescopes as PI (co-I), 46 hours (30 hours) on the SMA as PI (co-I) and 8 hours (18 hours) on JWST as co-PI (co-I). I have also been a co-investigator on projects for the VLA , the VLT and the Magellan telescopes, with awards of 70 hours, 25 hour and 2 nights, respectively. A break down of PI proposals can be found at the end of the CV.		
Professional Services	exoALMA Start of Science Workshop Boston, MA, USA	Dec. 2022	
	Vertical Shear Instability Meeting SOC Virtual Meeting	Nov. 2022	
	SMA Interferometry School SOC SMA, Hilo, Hawaii, USA	Mar. 2021	
	Advanced Data Analysis Techniques for ALMA SOC NRAO, Charlottesville, Virginia, USA [postponed due to Covid-19]	Oct. 2020	

	Departmental Seminar Series	
	Visualizing the Kinematics of Planet Formation SOC Flatiron Institute, New York City, USA	Oct. 2019
	Postdoc and Research Scientist DEI Representative Department Diversity, Equity and Inclusion Committee Member	2018 – 2019
	Equi-Tea Organizer Diversity, Equity and Inclusion Journal Club	2018 – 2019
	Stars, Planets and Formation Seminar Organizer Departmental Seminar Series	2018 – 2019
	Conversations on Equity and Inclusion Co-organizer Joint Physics / Astronomy / Space Sciences DEI Colloquium Series	2018 – 2019
	NESSF External Reviewer	2018, 2020
	Heidelberg MPG Student Workshop Organizer	2016
	PSF Coffee Organizer Departmental Seminar Series	2015 – 2017
	MPIA Student Representative	2015 – 2017
	MPIA Student Workshop Organizer	2015, 2016
	IMPRS Graduate Student Representative	2013 – 2017
	Referee for AAS, A&A, MNRAS and Nature journals	
SUPERVISION	Haochuan Yu Beijing Normal University Undergraduate student.	2020 -
	Alessandra Canta Harvard University Undergraduate student. Co-supervised with Karin Öberg, Harvard	2020 - 2021
	Felipe Alcaron University of Michigan Graduate student. Co-supervised with Ted Bergin and Ke Zhang, UMich.	2019 – 2020
	Jenny Calahan University of Michigan Graduate student. Co-supervised with Ted Bergin and Ke Zhang, UMich.	2019 – 2020
	Deryl Long University of Michigan Undergraduate student. Co-supervised with Ted Bergin and Ke Zhang, UMich.	2019
	Case Hazewinkel University of Michigan Undergraduate student. Co-supervised with Ted Bergin, UMich.	2019
	Jeanne Kwon University of Michigan Undergraduate Research Opportunity Program	2018 – 2019
	Julian Penzinger Ludwig Maximilian University Summer student. Co-supervised with Dmitry Semenov, MPIA.	2016, 2018
TALKS & SEMINARS	Gordon Conference on the Origins of Solar Systems Witnessing the Formation of Giant Planets and their Moons	Jun. 2023 (invited)
	Ohio State University Astronomy Colloquium TBD	Mar. 2023 (invited)
	Harvard University Department of Earth Sciences Colloqium TBD	Feb. 2023 (invited)
	From Clouds to Planets II: The Astrochemical Link ALMA's 3D View of Planet Formation	Oct. 2022 (invited)
	Center for Astrophysics Harvard & Smithsonian pH Lecture Exploring the Youngest Planetary Systems	Sep. 2022 (invited)
	University of Florida Astronomy Colloquium Detecting the Youngest Planets	Feb. 2022 (invited)

Penn State CEHW Seminar Series Detecting the Youngest Planets	Feb. 2022
Pan-Experiment Galactic Science Group Seminar Series	(invited) Nov. 2021
Detecting Molecular Line Polarization in Protoplanetary Disks	(invited)
Munich Join Astronomical Colloquium Mapping the Assembly of Planetary Systems in 6 Dimensions	Oct. 2021 (invited)
Center for Astrophysics Harvard & Smithsonian Colloquium Mapping the Assembly of Planetary Systems in 6 Dimensions	Sep. 2021 (invited)
ETH Zurich Exoplanets & Habitability Seminar Witnessing the Assembly of Planetary Systems	May 2021 (invited)
Cambridge Exoplanet Center Seminar Witnessing the Assembly of Planetary Systems	May 2021 (invited)
Towards the Comprehensive Characterization of Exoplanets: Science at the Interface of Multiple Measurement Techniques Transforming ALMA into a Planet Hunting Facility	Apr. 2021
McMaster University Astrophysics Seminar Witnessing the Assembly of Planetary Systems	Apr. 2021 (invited)
Circumplanetary Disks II Observations and Observational Predictions	Mar. 2021 (invited)
Max Planck Research Group Selection Symposium Witnessing the Assembly of Planetary Systems	Feb. 2021 (invited)
Caltech Dix Planetary Science Department Seminar Planet Formation in Six Dimensions	Feb. 2021 (invited)
Five Years After HL Tau: A New Era in Planet Formation Observing the Kinematics of Gaseous Substructures	Dec. 2020
Research Unit Transition Disks (RUTD) Conference	Oct. 2020
Observing the Dynamics of Planet Disk Interactions	(invited)
Exoplanets III	July 2020
Kinematical Detection and Characterizing of Protoplanets with ALMA	
MPIA Königstuhl Colloquium Visualizing the Assembly of Planetary Systems	July 2020 (invited)
JPL Astrophysics Collogium	Nov. 2019
Witnessing the Dynamics of Planetary Assembly	(invited)
Visualizing the Kinematics of Planet Formation Exploiting ALMA's Potential for Planet Hunting	Oct. 2019
Gordon Research Seminar Unveiling the Dynamics of Planet Formation	June 2019
IAU Symposium 350: Laboratory Astrophysics The Physical Conditions of Planet Formation with Molecular Excitation	Apr. 2019 (invited)
Planet-Forming Disks Unveiling the Dynamics of Planet Formation	Mar. 2019 (invited)
NAOJ Theoretical Astronomy Seminar	Oct. 2018
Observing the Kinematics of Planet-Disk Interactions with ALMA	(invited)
LMU Munich Astronomy Colloquium Using Kinematics to Search for Embedded Protoplanets	Aug. 2018 (invited)
University of Tübingen Astronomy Seminar Kinematical Detections of Embedded Protoplanets	Aug. 2018 (invited)
Astrophysical Frontiers in the Next Decade and Beyond The First Kinematical Detection of Embedded Protoplanets	Apr. 2018
Magnetic Fields or Turbulence A Spatially Resolved Search for Turbulence in TW Hya	Feb. 2018

	MPIA Patzer Awards Colloquium Measuring Turbulence in TW Hya with ALMA: Methods and Limitations	Nov. 2016 (invited)
	MPIA Königstuhl Colloquium	Nov. 2016
	Observing the Earliest Stages of Planet Formation	(invited)
	Astrochemistry with ALMA Cycle 4	Jun. 2016
	Detecting Turbulence in Protoplanetary Disks	(invited)
	Sant-Cugat Forum on Astrophysics	Apr. 2016
	Turbulence in Protoplanetary Disks: Methods and Limitations	
	Protoplanetary Discussions Turbulence in TW Hya	Mar. 2016
	Chemical Diagnostics of Star and Planet Formation	Jan. 2015
	Deuterium Fraction in Protoplanetary Disks	(invited)
	ZAG - IPAG - MPIA Workshop on Planet Formation Deuterium Fraction in DM Tau	Jan. 2015 (invited)
Successful	ALMA PI: Teague, R. , 18 hours, 2022.1.00840.S, A ranked	2022
TELESCOPE	The Most Sensitive Search for Magnetic Fields in a Solar Nebula Analogue	
PROPOSALS (AS PI)	ALMA PI: Teague, R. , 5 hours, 2022.1.00887.S, B ranked Ultra-High Velocity Resolutions of the Planet-Disk Interactions in TW Hya	2022
	ALMA PI: Teague, R. , 11 hours, 2022.1.00799.S, C ranked Mapping the Influence of Magnetic Fields on the Evolution of HD 163296	2022
	ALMA PI: Teague, R. , 33 hours, 2022.1.00993.S, C ranked Mapping the Magnetic Field Morphology in TW Hya	2022
	SMA PI: Teague, R., 30 hours, 2020A-S033, A ranked Is the Magneto-Rotational Instability Driving Protoplanetary Disk Evolution?	2021b
	ALMA PI: Teague, R., 183 hours, 2021.1.01123.L, A ranked co-PIs: Bensity, M., Facchini, S., Fukagawa, M. & Pinte, C. exoALMA Large Program	2021
	JWST co-Pls: Cugno, G. & Teague, R., 8 hours, 2153, Detecting a Young 2 Jupiter Mass Planet Embedded in the Disk of HD 163296	Cycle 1
	SMA PI: Teague, R., 6 hours, 2020A-S033, B ranked A 3D Exploration of an Edge-On Self-Gravitating Disk	2020b
	SMA PI: Teague, R., 10 hours, 2020A-S033, A ranked A 3D Exploration of an Edge-On Self-Gravitating Disk	2020a
	ALMA PI: Teague, R., 13.8 hours, 2019.1.01357.S, A ranked Constraining the H2 Surface Density Profile in IM Lup	2019
	ALMA PI: Teague, R., 3.0 hours, 2019.1.00794.S, B ranked Detecting the Photoevaporative Wind in IM Lup	2019
	ALMA PI: Teague, R. , 33.2 hours, 2019.1.00419.S, B ranked Mapping the 3D Kinematic Structure of Planet Formation	2019
	ALMA PI: Teague, R. , 20.2 hours, 2018.A.00021.S, DDT Confirmation of an Embedded Planet in the Disk of TW Hya	2019
	Magellan/MagAO PI: Teague, R., 6 hours Searching for Wide Separation Planets in AS 209	2018
	ALMA PI: Teague, R. , 6.7 hours, 2018.1.00980.S, A ranked An Unambiguous Detection of a Magnetic Field in a Protoplanetary Disk	2018
	ALMA PI: Teague, R. , 5.3 hours, 2016.1.00440.S, A ranked Model Independent Study of Turbulence and Temperature in TW Hya	2016
	IRAM PdBI PI: Teague, R. , 19.9 hours, W14BI, C ranked Disk Diagnostics with Deuteration	2014

telescopes, 30 hours with the **SMA**, 50 hours with the **VLA**, 70 hours with **VLT** (X-SHOOTER, SPHERE and CRIRES), 2 nights with **Magellan** (MagAO/MagAOx) and 18 hours with **JWST**.

OUTREACH	University of Michigan Lowbrow Astronomers How to Find Baby Planets	Nov. 2020
SCHOOL PARTICIPATION	45th Saas-Fee Course From Protoplanetary Disks to Planet Formation	2015
	Heidelberg Graduate School on Fundamental Physics	2015
	DIANA Protoplanetary Disk School	2014
Observing Experience	Sub-Millimeter Array Monthly rota	Sep. 2019 –
	MPG/ESO 2.2m	2016
	14 nights	
TEACHING	12.410 - Observational Techniques for Optical Astronomoy	2022
	Wavefront Analysis Laboratory Instructor	2014

PUBLICATIONS (LEAD AUTHOR)

- 20. **Teague, R.**, Bae, J., Andrews, S. M., et al., ApJ, in press *Mapping the Complex Kinematic Substructure in the TW Hya Disk*
- 19. **Teague, R.**, Bae, J., Benisty, M., et al., ApJ, 930, 144 *Gas and Dust Shadows in the TW Hydrae Disk*
- 18. **Teague, R.**, Law, C. J., Huang, J. et al., JOSS, 6 disksurf: Extracting the 3D Structure of Protoplanetary Disks
- 17. **Teague, R.**, Bae, J., Aikawa, Y., et al., ApJS, 257

 MAPS XVIII: Kinematic Substructure in the Disks of HD 163296 and MWC 480
- 16. **Teague, R.**, Hull, C. L. H., Bergin, E. A., et al., ApJ, 922 Discovery of Molecular Line Polarization in the Disk of TW Hya
- 15. **Teague, R.** & Loomis, R. A., ApJ, 899 *The Excitation Conditions of CN in TW Hya*
- 14. **Teague, R.**, Jankovic, M. R., Haworth, T. J., et al., MNRAS, 495 *A Three Dimensional View of Gomez's Hamburger*
- 13. **Teague, R.**, 2019, IAU Proceedings Series, 350

 Tracing The Physical Conditions of Planet Formation with Molecular Excitation
- 12. **Teague, R.**, Bae, J., Huang, J., Bergin, E. 2019, ApJL, 884 *Spiral Structure in the Gas Disk of TW Hya*
- 11. **Teague, R.**, Bae, J., Bergin, E. 2019, Nature, 574 *Meridional Flows in the Disk Around a Young Star*
- 10. **Teague**, **R.**, 2019, Journal of Open Source Software, 4 *GoFish: Fishing for Line Observations in Protoplanetary Disks*
- 9. Teague, R., 2019, RNAAS, 3

[non-refereed] Statistical Uncertainties in Moment Maps of Line Emission

- 8. **Teague**, **R.**, 2019, Journal of Open Source Software, 4 *eddy: Extracting Protoplanetary Disk Dynamics with Python*
- 7. **Teague, R.**, Bae, J., Birnstiel, T. & Bergin, E., 2018, ApJ, 868 Evidence For A Vertical Dependence on the Pressure Structure in AS 209
- 6. **Teague, R.** & Foreman-Mackey, D., 2018, RNAAS, 2 [non-refereed] A Robust Method to Measure Centroids of Spectral Lines
- 5. **Teague, R.**, Henning, T., Guilloteau, S., et al., 2018, ApJ, 864 *Temperature, Mass, and Turbulence: A Spatially Resolved Multiband Non-LTE Analysis of CS in TW Hya*

4. Teague, R., Bae, J., Bergin, E. A., et al., 2018, ApJL, 860

A Kinematical Detection of Two Embedded Jupiter-mass Planets in HD 163296

3. Teague, R., Semenov, D., Gorti, U., et al., 2017, ApJ, 835

Surface Density Perturbations in the TW Hydrae Disk at 95 au Traced by Molecular Emission

2. Teague, R., Guilloteau, S., Semenov, D., et al., 2016, A&A, 592

Measuring turbulence in TW Hya with ALMA: methods and limitations

1. **Teague, R.**, Semenov, D., Guilloteau, S., et al., 2015, A&A, 574

Chemistry in disks. IX. Observations and modelling of HCO⁺ and DCO⁺ in DM Tauri

(CO-AUTHOR)

All papers with a substantial component of student supervision are marked.

74. Bae, J., Teague, R., Andrews, S. M., et al., ApJL, in press

Kinematics and Brightness Temperature of Transition Discs

73. Wölfer, L., Facchini, S., van der Marel, N., et al., A&A, in press

Kinematics and Brightness Temperature of Transition Discs

72. Law, C. J., Crystian, S., **Teague, R.**, et al., ApJ, 932

[student paper] CO Line Emission Surfaces and Vertical Structure in Mid-Inclination Protoplanetary Disks

71. Ilee, J. D., Walsh, C., Jennings, J., , et al., MNRAS, in 515

Unveiling the outer dust disc of TW Hya with deep ALMA observations

70. Pinte, C., **Teague, R.**, Flaherty, K., et al., Protoplanets & Planets VII, *under review Kinematic Structures in Planet-Forming Disks*

69. Long, F., Andrews S. M., Rosotti, G., et al., ApJ, 931

Gas Disk Sizes from CO Line Observations: A Test of Angular Momentum Evolution

68. Hull, C. H. L., Haifeng Y., Cortés, P. C., et al., ApJ, 930

Polarization from Aligned Dust Grains in the β Pic Debris Disk

67. Bohn, A. J., Benisty, M., Perraut, K., et al., A&A, 658

Probing Inner and Outer Disk Misalignments in Transition Disks

66. Yu, H., Teague, R., Bae, J. & Öberg, K., ApJL, 920

[student paper] Mapping the 3D Kinematical Structure of the Gas Disk of HD 169142

65. Öberg, K. I., Guzmán, V. V., Walsh, C., et al., ApJS, 257

MAPS I: Program Overview and Highlights

64. Czekala, I., Loomis, R. A., Teague, R., et al., ApJS, 257

MAPS II: CLEAN Strategies for Synthesizing Images of Molecular Line Emission in Protoplanetary Disks

63. Law C. J., Loomis, R. A., Teague, R., et al., ApJS, 257

[student paper] MAPS III: Characteristics of Radial Chemical Substructures

62. Law C. J., Teague, R., Loomis, R. A., et al., ApJS, 257

[student paper] MAPS IV: Vertical Disk Chemical Structures

61. Zhang, K., Booth, A. S., Law, C. J., et al., ApJS, 257

MAPS V: CO Gas Distributions

60. Guzmán, V., Ö, K. I., Aikawa, Y., et al., ApJS, 257

MAPS VI: Distribution of the small organics HCN, C_2H and H_2CO

59. Bosman, A., Alarcon, F., Bergin, E. A., et al., ApJS, 257

MAPS VII: Sub-stellar O/H and C/H and Super-stellar C/O in Planet Feeding Gas

58. Alarcon, F., Bosman, A., Bergin, E. A., et al., ApJS, 257

MAPS VIII: Gap chemistry in AS 209 - Gas Depletion or Chemical Processing?

57. Ilee, J. D., Walsh, C., Booth, A. S., et al., ApJS, 257

MAPS IX: Distribution and properties of the Large Organic molecules HC₃N, CH₃CN and c-C₃H₂

56. Cataldi, G., Yamato, Y., Aikawa, Y., et al., ApJS, 257

MAPS X: Distributions of Deuterated Molecules

55. Bergner, J., Öberg, K. I., Bosman, A., et al., ApJS, 257

MAPS XI: CN and HCN as Tracers of Photochemistry in Disks

54. Le Gal, R., Öberg, K. I., Aikawa, Y., et al., ApJS, 257

MAPS XII: Inferring the C/O and S/H ratios in Protoplanetary Disks with Sulfur Molecules

- 53. Aikawa, Y., Cataldi, G., Yamato, Y., et al., ApJS, 257 MAPS XIII: HCO⁺ and Disk Ionization
- 52. Sierra, A., Peréz, L. M., Guzmán, V. V., et al., ApJS, 257

 MAPS XIV: Revealing Dust Disks Substructures From Nulti-wavelength Continuum Emission
- 51. Bosman, A., Bergin, E. A., Öberg, K. I., et al., ApJS, 257 MAPS XV: Tracing Protoplanetary Disk Structure Within 20 AU
- 50. Booth, A. S., Tabone, B., Aikawa, Y., et al., ApJS, 257 MAPS XVI: Zooming in on the HD 163296 Disk Wind with CO Isotopologues
- 49. Calahan, J., Bergin, E. A., Zhang, K., et al., ApJS, 257

 MAPS XVII: Uncovering the 2D Thermal Structure of HD 163296
- 48. Huang, J., Bergin, E. A., Öberg, K. I., et al., ApJS, 257

 MAPS XIX: Spiral Arms, a Tail, and Diffuse Structures Traced by CO Toward the GM Aur Disk
- 47. Schwarz, K., Calahan, J., Zhang, K., et al., ApJS, 257 MAPS XX: The Massive Disk Around GM Aurigae
- 46. Canta, A., **Teague, R.**, le Gal., R., et al., ApJ, 922 [student paper] The first detection of CH₂CN in a protoplanetary disk
- 45. Benisty, M., Bae, J., Facchini, S., et al., ApJL, 916 *A Circumplanetary Disk Around PDS 70c*
- 44. Andrews, S. M., Elder, W., Zhang, S., et al., ApJ, 916

 Limits on Millimeter Continuum Emission from Circumplanetary Material in the DSHARP Disks
- 43. Long, F., Andrews, S. M., Vega, J., et al., ApJ, 915
 The Architecture of the V892 Tau System: the Binary and its Circumbinary Disk
- 42. Rich, E., **Teague**, **R.**, Monnier, J., et al. ApJ, 913

 Are Small Dust Grains actually coupled to the Gas in Protoplanetary Disks?
- 41. Pegues, J., Öberg, K. I., Bergner, J. B., et al., ApJ, 911 An ALMA Survey of Chemistry in Disks around Late-Type M-Stars
- 40. Facchini, S., **Teague**, **R.**, Bae, J., et al. ApJ, 162 *The chemical inventory of the planet-hosting disk PDS 70*
- 39. Boehler, Y., Ménard, F., Robert, C. M. T., et al. A&A, 650 *Vortex-like kinematic signal, spirals, and beam smearing effect in the HD 142527 disk*
- 38. Bae, J., **Teague, R.**, Zhu, Z., ApJ, 912

 Tightly-Wound Spirals Driven by Buoyancy Resonance in Protoplanetary Disks
- 37. Cleeves, L. I., Loomis, R. A., **Teague, R.**, et al., ApJ, 911 The TW Hya Rosetta Stone Project IV: A hydrocarbon rich disk atmosphere
- 36. Pegues, J., Czekala, I., Andrews, S. M., ApJ, 908

 Dynamical Masses and Stellar Evolutionary Model Predictions of Low-Mass M-Stars
- 35. Harrison, R. E., Looney, L. W., Stephens, I. W., et al., ApJ, 908

 ALMA CN Zeeman Observations of AS 209: Limits on Magnetic Field Strength and Magnetically Driven Accretion Rate
- 34. Garufi, A., Podio, L., Codella, C., et al., A&A, 645 ALMA chemical survey of disk-outflow sources in Taurus (ALMA-DOT V)
- 33. Calahan, J., Bergin, E. A., Zhang, K., et al., ApJ, 908
 [student paper] Uncovering the Thermal Profile of a Typical Gaseous Protoplanetary Disk
- 32. Wölfer, L., Facchini, S., Kurtovic, N. T., et al. A&A, 648 *A highly non-Keplerian protoplanetary disc*
- 31. Terwisscha, J. v. S., Hogerheijde, M. R., Cleeves, L. I., et al., ApJ, 906 Spatially resolved emission of formaldehyde hints at low-temperature gas-phase formation
- 30. Öberg, K., Cleeves, L. I., Bergner, J., et al., AJ, 161 Radial and vertical distributions of DCN and DCO⁺ in the TW Hya disk
- 29. Podio, L., Garufi, A., Codella, C., et al., A&A, 644 ALMA chemical survey of disk-outflow sources in Taurus (ALMA-DOT II)
- 28. Alarcón, F., **Teague, R.**, Zhang, K., et al., ApJ, 905 [student paper] Chemical Evolution in a Protoplanetary Disk with Dust Substructures

- 27. White, J. A., Kóspál, Á, Hughes, A. G. Hughes, et al., 2020, ApJ, 904 ALMA and VLA Observations of EX Lupi in its Quiescent State
- 26. Stephens, I. W., Fernández-López, M., Li, Z.-H., et al., 2020, ApJ, 901 Low Level Carbon Monoxide Line Polarization in two Protoplanetary Disks
- 25. Hall, C., Dong, R., **Teague, R.**, et al., ApJ, 904 *Kinematic Evidence for Gravitational Instability*
- 24. Long, D. E., Zhang, K., **Teague, R.**, et al., 2020, ApJL, 895 [student paper] Hints of a Population of Solar System Analog Planets from ALMA
- 23. Facchini, S., Benisty, M., Bae, J., et al., 2020, A&A, 639

 Annular substructures in the transition disks around LkCa 15 and J1610

 23. Garufi, A. Codella, C. Bygl, K. et al., 2020, A&A, 636
- 22. Garufi, A., Codella, C., Rygl, K., et al., 2020, A&A, 636 ALMA chemical survey of disk-outflow sources in Taurus (ALMA-DOT I)
- 21. Rosotti, G., **Teague, R.**, Dullemond, C., et al., 2020, MNRAS, 495 The Efficiency of Dust Trapping in Ringed Protoplanetary Discs
- 20. Semenov, D. & **Teague**, **R.** 2020, Europhysics News, 51 Accretion disks around young stars: the cradles of planet formation
- 19. Huang, J., Andrews, S. M., Dullemond, C. P., et al., 2020, ApJ, 891 A multi-frequency ALMA characterization of substructures in the GM Aur protoplanetary disk
- 18. Rosotti., G., Benisty, M., Juhazs, A., et al., 2020, MNRAS, 491 Spiral arms in the proto-planetary disc HD100453 detected with ALMA
- 17. Bae, J., Zhu, Z., Baruteau, C., et al., 2019, ApJL, 884

 An Ideal Testbed for Planet-disk Interaction: Two Giant Protoplanets in Resonance Shaping the PDS 70 Disk
- 16. Isella, A., Benisty, M., **Teague, R.**, et al., 2019, ApJL, 879

 Detection of Continuum Submillimeter Emission Associated with Candidate Protoplanets
- 15. Cleeves, L. I., Loomis, R. A., **Teague, R.**, et al., 2019, BAAS, 51 Realizing the Unique Potential of ALMA to Probe the Gas Reservoir of Planet Formation
- 14. Lyra, W., Haworth, T., Bitsch, B., et al., 2019, BAAS, 51 Planet formation âĂŤ The case for large efforts on the computational side
- 13. Gallo, E., **Teague, R.**, Plotkin, R. M., et al., 2019, MNRAS, 488 ALMA observations of A0620-00: fresh clues on the nature of quiescent black hole X-ray binary jets
- 12. Schwarz, K., **Teague, R.**, Bergin, E., et al., 2019, ApJL, 876. *Line Ratios Reveal N2H+ Emission Originates above the Midplane in TW Hydrae*
- 11. Keppler, M., **Teague, R.**, Bae, J., et al., 2019, A&A, 625 [student paper] Highly structured disk around the planet host PDS 70 revealed by high-angular resolution observations
- 10. Semenov, D., Favre, C., Fedele, D., et al., 2018, A&A, 617

 Chemistry in disks. XI. Sulfur-bearing species as tracers of protoplanetary disk physics and chemistry: the DM Tau case
- 9. Flaherty, K. M., Hughes, A. M., **Teague**, **R.**, et al., 2018, ApJ, 856 *Turbulence in the TW Hya Disk*
- 8. Fedele, D., Tazzari, M., Booth, R., et al., 2018, A&A, 610

 ALMA continuum observations of the protoplanetary disk AS 209. Evidence of multiple gaps opened by a single planet
- 7. Flock, M., Nelson, R. P., Turner, N. J., et al., 2017, ApJ, 850
 Radiation Hydrodynamical Turbulence in Protoplanetary Disks: Numerical Models and Observational Constraints
- 6. Dutrey, A., Guilloteau, S., Piétu, V., et al., 2017, A&A, 607

 The Flying Saucer: Tomography of the thermal and density gas structure of an edge-on protoplanetary disk
- 5. Beuther, H., Linz, H., Henning, T., et al., 2017, A&A, 605 *Multiplicity and disks within the high-mass core NGC 7538IRS1*.
- 4. Parfenov, S. Y., Semenov, D. A., Henning, T., et al., 2017, MNRAS, 468

 On the methanol emission detection in the TW Hya disc: the role of grain surface chemistry and non-LTE excitation
- 3. van Boekel, R., Henning, T., Menu, J., et al., 2017, ApJ, 837 Three Radial Gaps in the Disk of TW Hydrae Imaged with SPHERE
- 2. Haworth, T. J., Ilee, J. D., Forgan, D. H., et al., 2016, PASA, 33 Grand Challenges in Protoplanetary Disc Modelling

1. Feng, S., Beuther, H., Semenov, D., et al., 2016, A&A, 593

Inferring the evolutionary stages of the internal structures of NGC 7538 S and IRS1 with chemistry