Michael A. Gully-Santiago

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Current Position

Research Associate UT Austin Deptartment of Astronomy · Austin, TX · 09/2022–*present*

Research Fellow · 02/2020–09/2022

Member of Exoplanet Atmospheres Research Group led by Prof. Caroline Morley

Education

Ph. D., Astronomy University of Texas at Austin· Austin, TX · 8/2008–5/2015

B. A., Astronomy & Physics Boston University · Boston, MA · 9/2003–5/2007

Awards

2019, Second Place, PyTorch Machine Learning / AI Summer Hackathon at Facebook HQ

2017, NASA Postdoctoral Program (NPP) Fellowship, *declined*

2016, Peking University Postdoctoral Defense High Pass

2014, University of Texas at Austin Department of Astronomy, David Benfield Memorial fellowship

2010-2013, NASA Graduate Student Research Program Fellowship, JPL Microdevices Lab

2010 & 2011, University of Texas at Austin Dean's Prestigious Fellowship Supplement

2007 Boston University College Prize for Excellence in Astronomy

Funding proposals as PI or Science PI

NASA TCAN

Accelerating Substellar Atmosphere Spectral Inference with Machine Learning Technologies
$1.5M; *Selectable*, pending Congressional Funding 9/2023

NASA ADAP

Brown Dwarfs in High Definition: Confronting Substellar Atmosphere Models with the Keck-NIRSPEC Archive
$380k; 2021 - 2024; NNH20ZDA001N-ADAP; Administrative PI: Caroline Morley

NASA TESS GI Cycle 4

A Systematic approach to quantifying starspot contrast with TESS and K2
$69k; 2022 - 2023; NNH20ZDA001N-TESS; Administrative PI: Caroline Morley

Research Experience and Technical Skills

Support Scientist Kepler/K2 Guest Observer Office · Moffett Field, CA · 05/2017–01/2020

Research Scientist `baeri.org` at NASA Ames Research Center · Moffett Field, CA · 02/2017–05/2017

Forward modeling Keck and IRTF spectra: Analysis of low resolution near-IR spectroscopy of young stars and brown dwarfs with collaborators T. Greene and M. Marley

Postdoctoral Researcher Kavli Institute for Astronomy and Astrophysics · Beijing, China · 10/2015–10/2016

Forward modeling IGRINS spectra: Analysis of high resolution, high bandwidth near-IR spectroscopy of young stars with collaborator G. Herczeg

Si diffractive optics group, Dept. of Astronomy University of Texas at Austin · Austin, TX · 9/2008–6/2014

Microelectronics Research Center · Austin, TX · 9/2008–6/2013
Center for Nano and Molecular Science · Austin, TX · 9/2008–9/2013

E-beam group, Microdevices Laboratory NASA Jet Propulsion Lab · Pasadena, CA · 9/2010–9/2013

Guest Observer, Magellan Telescope Las Campanas Observatory · La Serena, Chile · 2010–2012

Talks and Conference Participation

Select presentations have YouTube videos (▶) or SpeakDeck slides (SD) available.

Talk, SD Large Leading Tail of Helium in a Hot Saturn Undergoing Runaway Inflation, Towards Other Earths, 7/2023
Talk, SD Interpretable Transfer Learning for Cool Star Spectroscopy, Machine Learning Cool Stars 21, 7/2022
Talk, Technologies for Precision Stellar Activity, Penn State CEHW Seminar, 4/2022
Talk, Growing an ecosystem of spectral investigative tools, UT Austin, 9/2021
Talk, ▶ Condensate cloud modulation in IGRINS and TESS, TESS Science Conference, 8/2021
Talk, ▶ Applying Probabilistic Inference to Astronomical Spectroscopy, SciPy Conferece, 7/2020
Talk, SD Frontiers in forward modeling substellar atmospheres, UT Austin, 10/2020
Talk, SD Know Thy Planet Know Thy Starspots, Exoplanet Spectroscopy e-Workshop, 10/2019
Talk, Precision Stellar Activity, U. Arizona, Tucson, AZ, 1/2019
Talk, SD Kepler/K2 and IGRINS constrain starspots, AAS233, Seattle, WA, 1/2019
Talk, Precision Stellar Activity, UT Austin, Austin, TX, 11/2018
Talk, SD Measuring starspot physical properties, PLATO-ESP, Marseille, France, 10/2018
Poster, Physical properties of starspots, Cool Stars 20, Boston, MA, 7/2018
Talk, SD GPUs for Astronomy Data, NVIDIA Endeavor Research Center, Santa Clara, CA, 4/2018,
Poster, Physical properties of starspots, NASA Ames Space Science Jamboree, Moffett Field, CA, 4/2018
Talk, Starspots Confound Planet Transit Spectra, Bay Area Exoplanet Meeting, Moffett Field, CA, 3/2018
Lightning Talk, Starspots, UC Berkeley Astronomy Lunch Talk, Berkeley, CA, 2/2018,
Talk, Starspots with K2 and IGRINS, K2 Dwarf Stars and Clusters Workshop, Boston, MA, 1/2018
Poster, Physical properties of starspots, Know Thy Star Know Thy Planet, Pasadena, CA, 10/2017
Tutorial, The Starfish Spectral Inference Framework, Other Worlds Laboratory, UCSC, CA, 7/2017
Talk, Physical properties of starspots, Kepler/K2 Science Conference IV, Moffett Field, CA, 6/2017
Talk, Fundamental properties of youngs stars, KIPAC, Stanford University, CA, 3/2017
Talk, Abolute stellar ages and planet formation timescales, Bay Area Exoplanets, NASA Ames, CA, 3/2017
Talk, SD Measuring Fundamental Properties of Young Stars, Columbia U., NYC, NY, 11/2016
Talk, Measuring Fundamental Properties of Young Stars, Simons CCA, NYC, NY, 11/2016
Talk, Measuring Fundamental Properties of Young Stars, Boston U., Boston, MA 11/2016
Talk, Measuring Fundamental Properties of Young Stars, KIAA Beijing, China, 9/2016
Talk, Python for astronomy, Beijing Python Meetup, China, 8/2016
Poster, Measurement of starspot properties, Cool Stars 19, Uppsala, Sweden 6/2016
Talk, High Resolution Spectroscopy with IGRINS, Seoul, Korea, 11/2015
Attendee, Astro Data Hack Week, Seattle, WA, 9/2014

Poster, SPIE Astronomical Telescopes and Instrumentation, Montreal, QC, 6/2014
Poster, PPVI, Heidelberg, Germany, 7/2013
Talk, Star Formation Lunch, Jet Propulsion Lab, Pasadena, CA, 6/2013
Poster, Award winner- 3^{rd}/45, Nano Night, Center for Nano- and Molecular Science, Austin, TX, 3/2013
Poster, McDonald Observatory Board of Visitors meeting, Austin, TX, 2/2013
Invited Talk, SPIE Astronomical Telescopes and Instrumentation, Amsterdam, NL, July, 2012
Poster, Cool Stars 17, Barcelona, Spain, June 2012
Attendee, American Astronomical Society meeting, Austin, TX, Jan, 2012
Talk, Very Low Mass Stars and Brown Dwarfs, ESO, Garching, Germany, 10/2011
Attendee, National Society of Black and Hispanic Physicists, Austin, TX, 9/2011
Poster, Cool Stars 16, Seattle, WA, 9/2010
Poster, SPIE Astronomical Telescopes and Instrumentation, San Diego, CA, 6/2010

Teaching, Service, Leadership

Students mentored

Sujay Shankar; Undergrad · UT Austin · 2022-*present*
Ryan Hartung; Undergrad · UT Austin · Summer 2022
Jiayi Cao; Undergrad · UT Austin · 2022
Erica Sawczynec; Grad Student (*consulting role*)· UT Austin · 2022
Emily Lubar; Grad Student (*consulting role*)· UT Austin · 2022
Joel Burke; Undergrad (*consulting role*)· UT Austin · 2021
Diana Gonzalez-Argueta; TAURUS Program Undergrad · UT Austin · Summer 2021
Karina Kimani-Stewart; TAURUS Program Undergrad· UT Austin · Summer 2021
Aishwarya Ganesh; Undergrad · UT Austin · 2020–2022
Jessica Luna; Grad Student (*consulting role*) · UT Austin · 2020–2022
Sheila Sagear; NASA Summer Undergrad Intern · Kepler/K2 Science Center · Summer 2018
Amanda Turbyfill; Undergrad · UT Austin · 2013–2014

Hackathon Organizer UT Austin Astronomy Hackathon· Austin, TX · 2015, 2022

Statistical computing tutorial leader Kavli Institute for Astronomy & Astrophysics · Beijing, China · 2015–2016

Graduate Student Representative University of Texas at Austin Department of Astronomy · 6/2011–6/2012

Faculty member Clay Center Observatory at the Dexter & Southfield Schools · Brookline, MA · 6/2007–6/2008

Adult and continuing education instructor Brookline Adult Education · Brookline, MA · 6/2005–6/2008

Night lab teaching assistant Boston University · Boston, MA · 2006–2007

Public Outreach and Media Appearances

Screencast producer

YouTube `lightkurve` tutorials · 2018–2019

Podcast Appearances

Blue Dot Podcast: "The K2 Mission", NCPR, 6/2018

"Discovery and characterization of brown dwarfs", KVRX, 91.7FM · Austin, TX· 12/2012

Podcast Host, *They Blinded Me with Science* KVRX, 91.7FM · Austin, TX· 5/2013–5/2014

Produced and/or co-hosted 30 original science podcasts, with seed funding from UT College of Natural Sciences

Public talks and appearances

Talk, "How stars and planets form", Astronomy on Tap Bay Area, San Jose, CA, 2/2018

`Nightlife` Public Engagement, Cal Academy of Sciences, San Francisco, CA, 2017 & 2018

Invited talk, McDonald Observatory Board of Visitors meeting, Austin, TX, 2/2012

Science Under the Stars, Brackenridge Field Lab, Austin, TX, 12/2012

Interactive museum-style educational installation Department of Astronomy · Austin, TX· 7/2013–9/2014

X^1 Unique coursework or independent study

Statistical Modeling II, Prof. James Scott Statistics Department· 1/2014–5/2014

Statistics, Data Mining and Machine Learning in Astronomy Independent study· 1/2014–8/2014

Computer Skills

Creator: `muler`, `gollum`, `blasé`, `ynot`

Maintainer: `Starfish`, `lightkurve`, `telfit`

, **git**, , LaTeX, , , , `bokeh`, `conda`, `IDL`, `PyTorch`, `JAX`

NASA Advanced Supercomputing (NAS) High End Computing Capability (HECC) *Pleiades* 2018–2020

Texas Advanced Computing Center (TACC): *Maverick* 2015, *Frontera* 2020 – present

First Author Publications

[1] **Gully-Santiago, Michael**, C. V. Morley, J. Luna, M. MacLeod, A. Oklopčić, A. Ganesh, Q. H. Tran, Z. Zhang, B. P. Bowler, W. D. Cochran, D. M. Krolikowski, S. Mahadevan, J. P. Ninan, G. Stefánsson, A. Vanderburg, J. A. Zalesky, and G. R. Zeimann, "A Large and Variable Leading Tail of Helium in a Hot Saturn Undergoing Runaway Inflation," *arXiv e-prints*, p. arXiv:2307.08959, Jul. 2023.

[2] **Gully-Santiago, Michael** and C. V. Morley, "An Interpretable Machine-learning Framework for Modeling High-resolution Spectroscopic Data," *The Astrophysical Journal*, vol. 941, no. 2, p. 200, Dec. 2022.

[3] **Gully-Santiago, M.**, J. Luna, C. Morley, K. Kaplan, A. Ganesh, E. Sawczynec, J. Burke, and D. Krolikowski, "Astronomical échelle spectroscopy data analysis with 'muler'," *The Journal of Open Source Software*, vol. 7, no. 73, p. 4302, May 2022.

[4] **Gully-Santiago, M. A.**, G. J. Herczeg, I. Czekala, G. Somers, K. Grankin, K. R. Covey, J. F. Donati, S. H. P. Alencar, G. A. J. Hussain, B. J. Shappee, G. N. Mace, J.-J. Lee, T. W.-S. Holoien, J. Jose, and C.-F. Liu, "Placing the Spotted T Tauri Star LkCa 4 on an HR Diagram," *The Astrophysical Journal*, vol. 836, p. 200, Feb. 2017.

[5] **Gully-Santiago, M.**, D. T. Jaffe, and V. White, "Optical characterization of gaps in directly bonded Si compound optics using infrared spectroscopy," *Applied Optics*, vol. 54, p. 10177, Dec. 2015.

[6] **Gully-Santiago, M. A.**, D. T. Jaffe, C. B. Brooks, D. W. Wilson, and R. E. Muller, "High performance Si immersion gratings patterned with electron beam lithography," in *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, ser. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, vol. 9151, Jul. 2014, p. 5.

[7] **Gully-Santiago, M.**, W. Wang, C. Deen, and D. Jaffe, "Near-infrared metrology of high-performance silicon immersion gratings," in *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, ser. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, vol. 8450, Sep. 2012.

[8] **Gully-Santiago, M. A.**, K. N. Allers, and D. T. Jaffe, "Confirmation and Characterization of Young Disk-Bearing Brown Dwarfs and sub-Brown Dwarfs," in *16th Cambridge Workshop on Cool Stars, Stellar Systems, and the Sun*, ser. Astronomical Society of the Pacific Conference Series, C. Johns-Krull, M. K. Browning, and A. A. West, Eds., vol. 448, Dec. 2011, p. 633.

[9] **Gully-Santiago, M.**, W. Wang, C. Deen, D. Kelly, T. P. Greene, J. Bacon, and D. T. Jaffe, "High-performance silicon grisms for 1.2-8.0 μm: detailed results from the JWST-NIRCam devices," in *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, ser. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, vol. 7739, Jul. 2010.

Contributing Author Publications

[1] Z. Zhang, C. V. Morley, **Gully-Santiago, Michael**, M. MacLeod, A. Oklopčić, J. Luna, Q. H. Tran, J. P. Ninan, S. Mahadevan, D. M. Krolikowski, W. D. Cochran, B. P. Bowler, M. Endl, G. Stefánsson, B. M. Tofflemire, A. Vanderburg, and G. R. Zeimann, "Giant tidal tails of helium escaping the hot Jupiter HAT-P-32 b," *Science Advances*, vol. 9, no. 23, p. eadf8736, Jun. 2023.

[2] K. G. Stassun, G. Torres, M. Kounkel, B. M. Tofflemire, E. Leiner, D. L. Feliz, D. M. Dixon, R. D. Mathieu, N. Gosnell, and M. Gully-Santiago, "An Eclipsing Binary Comprising Two Active Red Stragglers of Identical Mass and Synchronized Rotation: A Post-mass-transfer System or Just Born That Way?" *The Astrophysical Journal*, vol. 950, no. 2, p. 99, Jun. 2023.

[3] B. M. Tofflemire, A. L. Kraus, A. W. Mann, E. R. Newton, **Gully-Santiago, Michael A.**, A. Vanderburg, W. C. Waalkes, Z. K. Berta-Thompson, K. I. Collins, K. A. Collins, L. D. Nielsen, F. Bouchy, C. Ziegler, C. Briceño, and N. M. Law, "A Low-mass, Pre-main-sequence Eclipsing Binary in the 40 Myr Columba Association-Fundamental Stellar Parameters and Modeling the Effect of Star Spots," *Astronomical Journal*, vol. 165, no. 2, p. 46, Feb. 2023.

[4] J. E. Libby-Roberts, Z. K. Berta-Thompson, H. Diamond-Lowe, M. A. Gully-Santiago, J. M. Irwin, E. M. R. Kempton, B. V. Rackham, D. Charbonneau, J.-M. Désert, J. A. Dittmann, R. Hofmann, C. V. Morley, and E. R. Newton, "The Featureless HST/WFC3 Transmission Spectrum of the Rocky Exoplanet GJ 1132b: No Evidence for a Cloud-free Primordial Atmosphere and Constraints on Starspot Contamination," *The Astronomical Journal*, vol. 164, no. 2, p. 59, Aug. 2022.

[5] E. M. Leiner, A. M. Geller, **Gully-Santiago, Michael A.**, N. M. Gosnell, and B. M. Tofflemire, "Revealing the Field Sub-subgiant Population Using a Catalog of Active Giant Stars and Gaia EDR3," *The Astrophyiscal Journal*, vol. 927, no. 2, p. 222, Mar. 2022.

[6] E. K. Palumbo, B. T. Montet, A. D. Feinstein, L. G. Bouma, J. D. Hartman, L. A. Hillenbrand, **Gully-Santiago, Michael A.**, and K. A. Banks, "Evidence for Centrifugal Breakout around the Young M Dwarf TIC 234284556," *The Astrophyiscal Journal*, vol. 925, no. 1, p. 75, Jan. 2022.

[7] N. M. Gosnell, **Gully-Santiago, Michael A.**, E. M. Leiner, and B. M. Tofflemire, "Observationally Constraining the Starspot Properties of Magnetically Active M67 Sub-subgiant S1063," *The Astrophyiscal Journal*, vol. 925, no. 1, p. 5, Jan. 2022.

[8] Q. Wang, A. Rest, Y. Zenati, R. Ridden-Harper, G. Dimitriadis, G. Narayan, V. A. Villar, M. R. Magee, R. J. Foley, E. J. Shaya, P. Garnavich, L. Wang, L. Hu, A. Bódi, P. Armstrong, K. Auchettl, T. Barclay, G. Barentsen, Z. Bognár, J. Brimacombe, J. Bulger, J. Burke, P. Challis, K. Chambers, D. A. Coulter, G. Csörnyei, B. Cseh, M. Deckers, J. L. Dotson, L. Galbany, S. González-Gaitán, M. Gromadzki, **Gully-Santiago, Michael**, O. Hanyecz, C. Hedges, D. Hiramatsu, G. Hosseinzadeh, D. A. Howell, S. B. Howell, M. E. Huber, S. W. Jha, D. O. Jones, R. Könyves-Tóth, C. Kalup, C. D. Kilpatrick, L. Kriskovics, W. Li, T. B. Lowe, S. Margheim, C. McCully, A. Mitra, J. A. Muñoz, M. Nicholl, J. Nordin, A. Pál, Y.-C. Pan, A. L. Piro, S. Rest, J. Rino-Silvestre, C. Rojas-Bravo, K. Sárneczky, M. R. Siebert, S. J. Smartt, K. Smith, Á. Sódor, M. D. Stritzinger, R. Szabó, R. Szakáts, B. E. Tucker, J. Vinkó, X. Wang, J. C. Wheeler, D. R. Young, A. Zenteno, K. Zhang, and G. Zsidi, "SN 2018agk: A Prototypical Type Ia Supernova with a Smooth Power-law Rise in Kepler (K2)," *The Astrophysical Journal*, vol. 923, no. 2, p. 167, Dec. 2021.

[9] P. Armstrong, B. E. Tucker, A. Rest, R. Ridden-Harper, Y. Zenati, A. L. Piro, S. Hinton, C. Lidman, S. Margheim, G. Narayan, E. Shaya, P. Garnavich, D. Kasen, V. Villar, A. Zenteno, I. Arcavi, M. Drout, R. J. Foley, J. Wheeler, J. Anais, A. Campillay, D. Coulter, G. Dimitriadis, D. Jones, C. D. Kilpatrick, N. Muñoz-Elgueta, C. Rojas-Bravo, J. Vargas-González, J. Bulger, K. Chambers, M. Huber, T. Lowe, E. Magnier, B. J. Shappee, S. Smartt, K. W. Smith, T. Barclay, G. Barentsen, J. Dotson, **Gully-Santiago, M.**, C. Hedges, S. Howell, A. Cody, K. Auchettl, A. Bódi,

Z. Bognár, J. Brimacombe, P. Brown, B. Cseh, L. Galbany, D. Hiramatsu, T. W. S. Holoien, D. A. Howell, S. W. Jha, R. Könyves-Tóth, L. Kriskovics, C. McCully, P. Milne, J. Muñoz, Y. Pan, A. Pál, H. Sai, K. Sárneczky, N. Smith, Á. Sódor, R. Szabó, R. Szakáts, S. Valenti, J. Vinkó, X. Wang, K. Zhang, and G. Zsidi, "SN2017jgh: a high-cadence complete shock cooling light curve of a SN IIb with the Kepler telescope," *Monthly Notices of the Royal Astronomical Society*, vol. 507, no. 3, pp. 3125–3138, Nov. 2021.

[10] R. López-Valdivia, K. R. Sokal, G. N. Mace, B. T. Kidder, M. Hussaini, L. Nofi, L. Prato, C. M. Johns-Krull, H. Oh, J.-J. Lee, C. Park, J. S. Oh, A. Kraus, K. F. Kaplan, J. Llama, A. W. Mann, H. Kim, **Gully-Santiago, Michael A.**, H.-I. Lee, S. Pak, N. Hwang, and D. T. Jaffe, "The IGRINS YSO Survey. I. Stellar Parameters of Pre-main-sequence Stars in Taurus-Auriga," *The Astrophysical Journal*, vol. 921, no. 1, p. 53, Nov. 2021.

[11] A. D. Feinstein, B. T. Montet, M. C. Johnson, J. L. Bean, T. J. David, **Gully-Santiago, Michael A.**, J. H. Livingston, and R. Luger, "H-alpha and Ca II Infrared Triplet Variations During a Transit of the 23 Myr Planet V1298 Tau c," *The Astronomical Journal*, vol. 162, no. 5, p. 213, Nov. 2021.

[12] E. Lubar, D. T. Jaffe, C. B. Brooks, S. Hickman, G. Mace, and **Gully-Santiago, Michael**, "Precise blaze angle measurements of lithographically fabricated silicon immersion gratings," in *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*, ser. Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series, vol. 11451, Dec. 2020, p. 114515I.

[13] A. D. Feinstein, B. T. Montet, M. Ansdell, B. Nord, J. L. Bean, M. N. Günther, **Gully-Santiago, Michael A.**, and J. E. Schlieder, "Flare Statistics for Young Stars from a Convolutional Neural Network Analysis of TESS Data," *The Astronomical Journal*, vol. 160, no. 5, p. 219, Nov. 2020.

[14] R. Ridden-Harper, B. E. Tucker, **Gully-Santiago, M.**, G. Barentsen, A. Rest, P. Garnavich, and E. Shaya, "K2: Background Survey - the search for undiscovered transients in Kepler/K2 data," *Monthly Notices of the Royal Astronomical Society*, vol. 498, no. 1, pp. 33–43, Oct. 2020.

[15] B. T. Montet, A. D. Feinstein, R. Luger, M. E. Bedell, **Gully-Santiago, Michael A.**, J. K. Teske, S. X. Wang, R. P. Butler, E. Flowers, S. A. Shectman, J. D. Crane, and I. B. Thompson, "The Young Planet DS Tuc Ab Has a Low Obliquity," *The Astronomical Journal*, vol. 159, no. 3, p. 112, Mar. 2020.

[16] R. Ridden-Harper, B. E. Tucker, P. Garnavich, A. Rest, S. Margheim, E. J. Shaya, C. Littlefield, G. Barensten, C. Hedges, and **Gully-Santiago, M.**, "Discovery of a new WZ Sagittae-type cataclysmic variable in the Kepler/K2 data," *Monthly Notices of the Royal Astronomical Society*, vol. 490, no. 4, pp. 5551–5559, Dec. 2019.

[17] F. Long, G. J. Herczeg, D. Harsono, P. Pinilla, M. Tazzari, C. F. Manara, I. Pascucci, S. Cabrit, B. Nisini, D. Johnstone, S. Edwards, C. Salyk, F. Menard, G. Lodato, Y. Boehler, G. N. Mace, Y. Liu, G. D. Mulders, N. Hendler, E. Ragusa, W. J. Fischer, A. Banzatti, E. Rigliaco, G. van de Plas, G. Dipierro, **Gully-Santiago, Michael**, and R. Lopez-Valdivia, "Compact Disks in a High-resolution ALMA Survey of Dust Structures in the Taurus Molecular Cloud," *The Astrophysical Journal*, vol. 882, no. 1, p. 49, Sep. 2019.

[18] G. Lodato, G. Dipierro, E. Ragusa, F. Long, G. J. Herczeg, I. Pascucci, P. Pinilla, C. F. Manara, M. Tazzari, Y. Liu, G. D. Mulders, D. Harsono, Y. Boehler, F. Ménard, D. Johnstone, C. Salyk, G. van der Plas, S. Cabrit, S. Edwards, W. J. Fischer, N. Hendler, B. Nisini, E. Rigliaco, H. Avenhaus, A. Banzatti, and **Gully-Santiago, Michael**, "The newborn planet population emerging from ring-like structures in discs," *Monthly Notice of the Royal Astronomical Society*, vol. 486, no. 1, pp. 453–461, Jun. 2019.

[19] Y. Liu, G. Dipierro, E. Ragusa, G. Lodato, G. J. Herczeg, F. Long, D. Harsono, Y. Boehler, F. Menard, D. Johnstone, I. Pascucci, P. Pinilla, C. Salyk, G. van der Plas, S. Cabrit, W. J. Fischer, N. Hendler, C. F. Manara, B. Nisini, E. Rigliaco, H. Avenhaus, A. Banzatti, and **Gully-Santiago, Michael**, "Ring structure in the MWC 480 disk revealed by ALMA," *Astronomy and Astrophysics*, vol. 622, p. A75, Feb. 2019.

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