Kyle Kremer | Curriculum Vitae

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Research Summary

My research program in computational astrophysics builds connections between the fields of stellar dynamics and compact objects. My areas of expertise include **N-body simulations** of dense star clusters, detection of compact object binaries via **gravitational waves** (e.g., LIGO & LISA), and **high-energy transient phenomena** such as tidal disruption events and fast radio bursts. I have also worked on binary star evolution, hydrodynamics of stellar mergers, radio pulsars, intermediate-mass black holes, white dwarf binaries, low-mass X-ray binaries, and observational searches for black holes in Milky Way globular clusters.

Academic Positions

University of California, San Diego — La Jolla, CA
Assistant Professor of Astronomy & Astrophysics — 2024 – present

California Institute of Technology — Pasadena, CA
NASA Einstein Fellow — 2023–2024
NSF Astronomy & Astrophysics Fellow — 2020–2022

Carnegie Observatories — Pasadena, CA
NSF Astronomy & Astrophysics Fellow — 2020–2022

Northwestern University — Evanston, IL
Research Associate — 2020
NSF Graduate Research Fellow — 2015-2019

Education

Northwestern University — Evanston, IL
Ph.D. in Astronomy — 2019
– Thesis: The Role of Black Holes in Globular Cluster Dynamics
– Advisor: Fred Rasio
Master of Science in Physics & Astronomy — 2017

Colburn Conservatory of Music — Los Angeles, CA
Master of Music — 2015

Northwestern University — Evanston, IL
Bachelor of Music; Double Major in Physics and Music Performance — 2012

Honors & Awards

San Diego Supercomputer Center Faculty Fellowship	2024
NASA Einstein Fellowship	2022
NSF Astronomy & Astrophysics Postdoctoral Fellowship	2020
Carnegie Fellowship in Theoretical Astrophysics	2020
Caltech Burke Fellowship	2020
NSF Graduate Research Fellowship	2015
Winston Churchill Scholarship	2012
Barry M. Goldwater Scholarship	2011
National Undergraduate Fellowship, Princeton Plasma Physics Laboratory	2011
NASA Summer Research Program, Northwestern University	2009, 2010

Research Support as PI or co-PI

- *First Mass Measurement of Black Holes in a Globular Cluster* 2024
  Hubble Space Telescope Cycle 32, 10 orbits (Co-PI with Casey Lam), $12k to UCSD
- *Modeling Black Hole Dynamics in Dense Star Clusters* 2022
  NASA Hubble Fellowship Program, $400k
- *Modeling Dense Star Clusters in the Era of LIGO, LISA, and LSST* 2020
  NSF Astronomy & Astrophysics Postdoctoral Fellowship Program, $300k
- *A Radial Velocity Black Hole Search in Milky Way Globular Clusters*
  Roughly 140 total hours awarded through 2025A on Keck II (via UC/Caltech institutional calls) and Magellan Clay (via Carnegie institutional call)

Students Mentored

- Casey Carlile – NSF Graduate Research Fellow at UCSD 2025-present
- Aidan Mai – Undergraduate at UCSD 2024-present
- William Yang – Carnegie CASSI program 2024-present
- Fulya Kıroğlu – Grad student at NU (6 publications) 2020-present
- Elena González Prieto – CIERA REU program; now grad student at NU (3 publications) 2020-present
- Donavon Evans – Carnegie CASSI program (1 publication) 2022-2024
- Riya Shrivastava – Carnegie CASSI program; Caltech SURF program (1 publication) 2021-2024
- Yanlong Shi – Grad student at Caltech; now postdoc at CITA (3 publications) 2021-2023
- Devin Becker – CIERA REU program; now grad student at MIT (1 publication) 2019
- Nicholas Rui – CIERA summer student; now grad student at Caltech (6 publications) 2019
- Mitchell Lachat – CIERA REU program; now grad student at Univ of Rochester (1 publication) 2018

Invited Talks and Presentations

56. *University of California, Irvine; Astronomy Seminar April 2025
55. 10 Years to LISA, Jet Propulsion Laboratory, Pasadena, CA April 2025
54. *University of California, Los Angeles; Astronomy Colloquium January 2025
53. *University of Hawaii; Astronomy Colloquium September 2024
52. *Carnegie Observatories; Astronomy Colloquium September 2024
51. *Canadian Institute for Theoretical Astrophysics; Astrophysics Seminar August 2024
50. *NASA Jet Propulsion Laboratory; Astrophysics Seminar July 2024
49. 15th International LISA Symposium, Dublin, IR July 2024
48. *Institute of Cosmos Sciences of the University of Barcelona; Astrophysics Seminar May 2024
47. Anticipating the Rising Tide of Tidal Disruption Events, KITP, Santa Barbara, CA April 2024
46. Extreme Solar Systems V, Christchurch, NZ March 2024
45. *University of California, Santa Cruz; Astronomy Colloquium February 2024
44. *University of California, San Diego; Astronomy Colloquium February 2024
43. *Intermediate-Mass Black Holes: The dawn of a revolutionary era, San Pedro, BZ December 2023
42. Hubble Fellows Symposium, Cambridge, MA September 2023
41. MODEST-23 Meeting, Evanston, IL September 2023
40. *Aspen Summer Program (Stellar Interactions and the Transients they Cause), Aspen, CO July 2023
39. *Las Cumbres Observatory; Astronomy Seminar June 2023
38. *AAS HEAD Meeting (special session on intermediate-mass black holes), Waikoloa, HI March 2023
37. GMT Community Science Meeting (Black Holes at All Scales), Sedona, AZ September 2022
36. *Time Domain and Multimessenger Astrophysics NASA Workshop, Annapolis, MD August 2022
35. AAS Summer Meeting, Pasadena, CA June 2022
34. *TIFR Astronomy Seminar, Mumbai, IN May 2022
33. IAU 361: Massive Stars Near & Far, Ballyconnell, IR May 2022
32. Intermediate-mass Black Holes Meeting, San Juan, PR April 2022
31. *AAS HEAD Meeting (special session on dynamical formation of GW sources), Pittsburgh, PA March 2022
30. Dynamical Formation of Gravitational Wave Sources, Aspen, CO January 2022
29. *CIERA Science Happy Hour, Northwestern, Evanston, IL September 2021

28. FRB 2021 Meeting (virtual) July 2021
27. *Niels Bohr Institute, Copenhagen, DK November 2020
26. *Michigan State Astro Seminar, East Lansing, MI June 2020
25. *CGCA Seminar, UW-Milwaukee, Milwaukee, WI February 2020
24. AAS Winter Meeting (dissertation talk), Honolulu, HI January 2020
23. *Harvard–CfA, Cambridge, MA December 2019
22. *Carnegie Obervatories Lunch Talk, Pasadena, CA November 2019
21. *Caltech Tea Talk, Pasadena, CA November 2019
20. *UCLA Astro Seminar, Los Angeles, CA November 2019
19. *UC–Santa Barbara Astro Lunch, Santa Barbara, CA October 2019
18. *UC–Santa Cruz FLASH Seminar, Santa Cruz, CA October 2019
17. The Beginnings and Ends of Double White Dwarfs, Copenhagen, DK July 2019
16. MODEST-19 Meeting, Bologna, IT May 2019
15. *MODEST Meeting (Review talk), Bologna, IT May 2019
14. LISA Astrophysics Working Group, Paris, FR December 2018
13. *Caltech TAPIR Seminar, Pasadena, CA November 2018
12. Midwest Relativity Meeting, Milwaukee, WI October 2018
11. *University of Florida Theoretical Astrophysics Seminar, Gainesville, FL September 2018
10. 12th International LISA Symposium, Chicago, IL July 2018
9. MODEST-18 Meeting, Santorini, GR June 2018
8. *Harvard–CfA ITC Seminar, Cambridge, MA May 2018
7. *MIT Brownbag Seminar, Cambridge, MA May 2018
6. American Physical Society April Meeting, Columbus, OH April 2018
5. Midwest Relativity Meeting, Ann Arbor, MI October 2017
4. MODEST-17 Meeting, Prague, CZ September 2017
3. AAS Winter Meeting, Grapevine, TX January 2017
2. AAS Summer Meeting, Anchorage, AK June 2012
1. APS Division of Plasma Physics Meeting, Salt Lake City, UT November 2011

(*denotes invited talk)

Teaching Experience

Courses taught (UCSD)

· Astronomy 1: Stars and Black Holes (300 students) Fall 2024

Carnegie Astrophysics Summer Student Internship 2021-2024

Co-instructor in annual series of lectures for roughly 20 summer undergraduate students. Includes python tutorials, scientific presentation/writing workshops, and research seminars

Guest Lecturer for Caltech graduate courses

· Fluid Dynamics (taught by J. Fuller) 2023
· Seminar on Stellar Black Holes (taught by S.R. Kulkarni & M. Kasliwal) 2021

Guest Lecturer for undergraduate course at Northwestern University 2016, 2017

Developed curriculum and co-taught series of lectures for course *"Engineering Improv II: The Art of Application."* This course (for first-year undergraduates in the McCormick School of Engineering) studies how applied improvisation can be a catalyst for creativity, innovation, and change in STEM fields.

Teaching Assistant at Northwestern University

· Introduction to Astrophysics (taught by G. Novak) 2018

Northwestern University Center for Talent Development 2016

Developed curriculum and co-taught two-day course on astronomy for class of 20 middle school students

Professional Service

Departmental Service
- UCSD Graduate Advisory Committee 2024-2025
- Caltech Pizza Lunch organizer 2022-2024
- Caltech TAPIR Seminar organizer 2021-2024
- CIERA Seminar organizer 2019

Conferences Organized
- MODEST-23: Star Clusters in the Post-Pandemic Era 2023
- CIERA Workshop on Black Hole Dynamics in Clusters 2018

Panels Served
- UC Keck Observatory TAC 2025B
- NASA peer review 2025
- NASA peer review (Chair) 2023
- Five-hundred-meter Aperature Spherical Telescope (FAST) observing proposals 2023

Peer Reviewer (total ~ 25)
- Nature Astronomy
- Physical Review (PRD and PRL)
- AAS Journals (ApJ and ApJL)
- Monthly Notices of the Royal Astronomical Society
- Classical and Quantum Gravity
- Publications of the Astronomical Society of Australia

Outreach, Diversity/Equity/Inclusion Efforts, and Community Engagement

Cosmos in Concert (`www.cosmosinconcert.com`) 2015-present

Educational outreach program combining classical music with astronomy education. Presents multimedia shows featuring live music performance, astronomy visuals, and narration. 17 concerts in six states for audiences totaling over 6,000 people, including over 1,000 students from Chicago and Los Angeles public schools.
- Organized, fundraised, and directed annual concert series at Northwestern University presenting multimedia shows for symphony orchestra. Past concerts include *Solar System Symphony* (Spring 2016), *A Shout Across Time* (Spring 2017), and *Celestial Suite* (Fall 2017).
- Collaborations with professional orchestras (Boulder Philharmonic Orchestra), top U.S. music conservatories (Bienen School of Music, Colburn School), leading composers (James Stephenson, Matthew Fuerst, Ira Mowitz), and Chicago-area science organizations (Fermi National Lab, Adler Planetarium).
- Presented concerts in Los Angeles in collaboration with the Colburn School as part of NSF Astronomy and Astrophysics Postdoctoral Fellowship.

Science Sonification Project 2016-2017

Developed and led a cross-disciplinary collaboration at Northwestern that brought together doctoral students in music composition and the sciences to create original science-inspired music compositions that showcase scientific innovation in the Northwestern research community.
- Facilitated collaboration between six scientists from various departments and six composers from the Bienen School of Music, with each pair creating a unique piece of music.
- As culmination of project, organized the Science Sonification Project Showcase in May 2017 featuring performances of these new compositions. Audience included Northwestern students, faculty, and staff as well as the general public.

The Nettelhorst School Astronomy Residency 2015-2016

Organized a six-week residency at The Nettelhorst School (a GK-8 Chicago Public School) to develop science curriculum.
- Led a team of ten Northwestern graduate students from various departments at Northwestern, including the School of Education and Social Policy, Materials Science, and Physics & Astronomy.
- Worked directly with middle school science teachers and students.
- Organized two live music performances presented by musicians from Northwestern's Bienen School of Music.
- In total, the residency reached approximately 500 GK-8 students at Nettelhorst.

Caltech Stargazing & Public Lecture Series 2022-2024
Served as lecturer, panelist, and/or telescope operator for monthly lecture series for general public in Pasadena.

Public Lectures
- Keck Observatory Donor Salons March 2025 (virtual), April 2025 (La Jolla, CA)
- GMT Board of Directors Meeting (Manhattan Beach, CA) 2024
- Carnegie Lecture Series at Huntington Gardens; `view here` (San Marino, CA) 2023
- Pasadena City College (Pasadena, CA) 2023
- Pasadena Public Library (Pasadena, CA) 2023
- Caltech Astronomy Public Lecture Series (Pasadena, CA) 2022
- Colburn School (Los Angeles, CA) 2022
- Pasadena Senior Center (Pasadena, CA) 2022
- Wilmette Public Library (Wilmette, IL) 2017-2019

Publications

Publication Metrics (as of April 2025):
- 87 total publications; 21 first-author, 21 second-author, 37 Nth-author, 1 book chapter, and 7 research notes/proceedings/white papers
- All publications – **4145 citations, h-index of 35**
- First/second-author publications – **1770 citations, h-index of 23**

First-author publications:

21. *Can slow pulsars in Milky Way globular clusters form via partial recycling?*
Kremer, K., Ye, C.S., Heinke, C.A., Piro, A.L., Ransom, S.M., Rasio, F.A. 2024, ApJL, 977, L42
20. *Connecting the young pulsars in Milky Way globular clusters with white dwarf mergers and the M81 FRB*
Kremer, K., Fuller, J., Piro, A.L., Ransom, S.M. 2023, MNRAS, 525, L22
19. *Wind-reprocessed transients from stellar-mass black hole tidal disruption events*
Kremer, K., Mockler, B., Piro, A.L., Lombardi, J., 2023, MNRAS, 524, 6358
18. *Prospects for detecting fast radio bursts in globular clusters of nearby galaxies*
Kremer, K., Li, D., Lu, W., Piro, A.L., Zhang, B. 2023, ApJ, 944, 6
17. *Formation of low-mass black holes and single millisecond pulsars in globular clusters*
Kremer, K., Ye, C.S., Kıroğlu, F., Lombardi, J., Ransom, S., Rasio, F.A. 2022, ApJL, 934, L1
16. *Hydrodynamics of close encounters between main-sequence stars and black hole remnants*
Kremer, K., Lombardi, J., Lu, W., Piro, A.L., Rasio, F.A. 2022, ApJ, 933, 203
15. *Dynamical formation channels for fast radio bursts in globular clusters*
Kremer, K., Piro, A.L., Li, D. 2021, ApJL, 917, L11
14. *White dwarf subsystems in core-collapsed globular clusters*
Kremer, K. Rui, N.Z., et al. 2021, ApJ, 917, 28
13. *Fast optical transients from stellar-mass black hole tidal disruption events in young star clusters*
Kremer, K., Lu, W., Piro, A.L., et al. 2021, ApJ, 911, 104
12. *Populating the upper black hole mass gap through stellar collisions in young star clusters*
Kremer, K., Spera, M., Becker, D., Chatterjee, S., et al. 2020, ApJ, 903, 45
11. *Modeling dense star clusters in the Milky Way and beyond with the `CMC` cluster catalog*
Kremer, K., Ye, C.S., Rui, N.Z., Weatherford, N.C., Chatterjee, S., et al. 2020, ApJS, 247, 48
10. *Probing the survival of planetary systems in globular clusters with tidal disruption events*
Kremer, K., D'Orazio, D.J., Samsing, J., Chatterjee, S., Rasio, F.A. 2019, ApJ, 885, 2
9. *Tidal disruptions of stars by black hole remnants in dense star clusters*
Kremer, K., Lu, W., Rodriguez, C.L., Lachat, M., Rasio, F.A. 2019, ApJ, 881, 75
8. *Post-Newtonian dynamics in dense star clusters: Binary black holes in the LISA band*
Kremer, K., Rodriguez, C. L., Amaro-Seoane, P., Breivik, K., et al. 2019, PRD, 99, 063003
7. *How initial size governs core collapse in globular clusters*
Kremer, K., Chatterjee, S., Ye, C. S., Rodriguez, C. L., Rasio, F. A., 2019, ApJ, 871, 38
6. *Low-mass X-ray binaries ejected from globular clusters*
Kremer, K., Chatterjee, S., Rodriguez, C.L., Rasio, F.A. 2019, submitted to ApJ, arXiv: 1802.04895
5. *How black holes shape globular clusters: Modeling NGC 3201*
Kremer, K., Ye, C. S., Chatterjee, S., Rodriguez, C.L., Rasio, F.A. 2018, ApJL, 855, L15

4. *LISA sources in Milky Way globular clusters*
Kremer, K., Chatterjee, S., Breivik, K., Rodriguez, C.L., Larson, S.L., Rasio, F.A. 2018, PRL, 120, 191103
3. *Accreting black hole binaries in globular clusters*
Kremer, K., Chatterjee, S., Rodriguez, C.L., Rasio, F.A. 2018, ApJ, 852, 29
2. *Accreting double white dwarf binaries: Implications for LISA*
Kremer, K., Breivik, K., Larson, S.L., Kalogera, V. 2017, ApJ, 846, 95
1. *Long-term evolution of double white dwarf binaries accreting through direct impact*
Kremer, K., Sepinsky, J., Kalogera, V. 2015, ApJ, 806, 76

Co-author publications:

58. *Studying Binary Systems in Omega Centauri with MUSE: II. Observational constraints on the orbital period distribution*
Saracino, S., Kamann, S., Wragg, F., Dreizler, S., **Kremer, K.** et al. 2025, MNRAS, 538, 3189
57. *Zooming In On The Multi-Phase Structure of Magnetically-Dominated Quasar Disks: Radiation From Torus to ISCO Across Accretion Rates*
Hopkins, P.F. et al. (including **Kremer, K.**) 2025, submitted, arXiv:2502.05268
56. *Localizing Dynamically-Formed Black Hole Binaries in Milky Way Globular Clusters with LISA*
Xuan, Z., **Kremer, K.,** Naoz, S. 2025, submitted to ApJL
55. *Spin-Orbit Alignment in Merging Binary Black Holes Following Collisions with Massive Stars*
Kiroglu, F., Lombardi, J.C., **Kremer, K.,** Vanderzyden, H.D., Rasio, F.A. 2025, ApJL, 983, L9
54. *Extracting Astrophysical Information of Highly-Eccentric Binaries in the Millihertz Gravitational Wave Band*
Xuan, Z., Naoz, S., et al. (including **Kremer, K.**) 2025, PRD, 111, 043018
53. *Formation of Stripped Stars From Stellar Collisions in Galactic Nuclei*
Gibson, C.F.A. et al. (including **Kremer, K.**) 2025, ApJ, 980, 109
52. *Black Hole Accretion and Spin-up Through Stellar Collisions in Dense Star Clusters*
Kiroglu, F., **Kremer, K.,** Biscoveanu, S., Gonzalez Prieto, E., Rasio, F.A. 2025, ApJ, 979, 237
51. *Lower-mass-gap Black Holes in Dense Star Clusters*
Ye, C.S., **Kremer, K.,** Ransom, S.M., Rasio, F.A. 2024, ApJ, 975, 77
50. *Discovery of a Hypervelocity L Subdwarf at the Star/Brown Dwarf Mass Limit*
Burgasser, A., Gerasimov, R., **Kremer, K.,** et al. 2024, ApJ, 971, L25
49. *From Seed to Supermassive Black Holes: Capture, Growth, Migration, and Pairing in Dense Proto-Bulge Environments*
Shi, Y., **Kremer, K.,** Hopkins, P.F. 2024, A&A, 691, 24
48. *Feedback-regulated Seed Black Hole Growth in Star-Forming Molecular Clouds and Galactic Nuclei*
Shi, Y., **Kremer, K.,** Hopkins, P.F. 2024, ApJ, 969, L31
47. *Dynamical formation of Gaia BH3 in the progenitor globular cluster of the ED-2 stream*
Marín Pina, D., Rastello, S., Gieles, M., **Kremer, K.** et al. 2024, A&A, 688, L2
46. *FORGE'd in FIRE III: The IMF in Quasar Accretion Disks from STARFORGE*
Hopkins, P.F., Grudic, M., **Kremer, K.** et al. 2024, OJAp, 7, 71
45. *Spin Doctors: How to diagnose a hierarchical merger origin*
Payne, E., **Kremer, K.,** Zevin, M. 2024, ApJ, 966, L16
44. *IMBH Progenitors from Stellar Collisions in Dense Star Clusters*
González Prieto, E., Weatherford, N., Fragione, G., **Kremer, K.**, Rasio, F.A. 2024, ApJ, 969, 29
43. *Stellar Escape from Globular Clusters II: Clusters May Eat Their Own Tails*
Weatherford, N., Rasio, F.A., Chatterjee, S., Fragione, G., Kiroglu, F., **Kremer, K.** 2024, ApJ, 967, 42
42. *An Analytic Model For Magnetically-Dominated Accretion Disks*
Hopkins, P.F. et al. (including **Kremer, K.**) 2024, OJAp, 7, 20
41. *FORGE'd in FIRE II: The Formation of Magnetically-Dominated Quasar Accretion Disks from Cosmological Initial Conditions*
Hopkins, P.F. et al. (including **Kremer, K.**) 2024, OJAp, 7, 19
40. *Single millisecond pulsars from dynamical interaction processes in dense star clusters*
Ye, C.S., **Kremer, K.,** Ransom, S.M., Rasio, F.A. 2024, ApJ, 961, 98
39. *An elusive dark central mass in the globular cluster M4*
Vitral, E., Libraloto, M., **Kremer, K.,** et al. 2023, MNRAS, 522, 5740
38. *Growing Black Holes through Successive Mergers in Galactic Nuclei: I. Methods and First Results*
Atallah, D., Trani, A.A, **Kremer, K.,** et al. 2023, MNRAS, 523, 4227

37. *Stellar Escape from Globular Clusters I: Escape Mechanisms and Properties at Ejection*
Weatherford, N.C., Kıroğlu, F., Fragione, G., Chatterjee, S., **Kremer, K.,** Rasio, F.A. 2023, ApJ, 946, 104
36. *Tidal Disruption of Main-Sequence Stars by Intermediate-Mass Black Holes*
Kıroğlu, F., Lombardi, J., **Kremer, K.,** et al. 2023, ApJ, 948, 89
35. *Hyper-Eddington black hole growth in star-forming molecular clouds and galactic nuclei: Can it happen?*
Shi, Y., **Kremer, K.**, Grudić, M.Y., Gerling-Dunsmore, H.J., Hopkins, P.F. 2023, MNRAS, 518, 3606
34. *Constraining white dwarf tides from gravitational waves with LISA*
Biscoveanu, S., **Kremer, K.**, Thrane, E. 2023, ApJ, 949, 95
33. *Astrophysics with the Laser Interferometer Space Antenna*
Amaro-Seoane et al. (including **Kremer, K.**) 2023, LRR, 26, 2
32. *Intermediate-mass Black Holes on the Run from Young Star Clusters*
González Prieto, E., **Kremer, K.,** et al. 2022, ApJ, 940, 131
31. *Radio detection of an elusive hidden millisecond pulsar in the globular cluster NGC 6397*
Zhang, L. et al. (including **Kremer, K.)** 2022, ApJL, 934, L21
30. *Stellar graveyards: Clustering of compact objects in globular clusters NGC 3201 and NGC 6397*
Vitral, E., **Kremer, K.**, Libralato, M., Mamon, G., Bellini, A. 2022, MNRAS, 514, 806
29. *Compact Object Modeling in the Globular Cluster 47 Tucanae*
Ye, C.S., **Kremer, K.** et al. 2022, ApJ, 931, 84
28. *Gravitational Microlensing Rates in Milky Way Globular Clusters*
Kıroğlu, F., Weatherford, N.C., **Kremer, K.** et al. 2022, ApJ, 928, 181
27. *The Imprint of Superradiance on Hierarchical Black Hole Mergers*
Payne, E., Sun, L., **Kremer, K.**, Lasky, P.D., Thrane, E. 2022, ApJ, 931, 79
26. *Implications of Eccentric Observations on Binary Black Hole Formation Channels*
Zevin, M., Romero-Shaw, I., **Kremer, K.** Thrane, E., Lasky, P.D. 2021, ApJ, 921, L43
25. *Modeling Dense Star Clusters in the Milky Way and Beyond with the Cluster Monte Carlo Code*
Rodriguez, C.L. et al. (including **Kremer, K.**), 2021, ApJS, 258, 22
24. *The Supersonic Project: SIGOs, a Proposed Progenitor to Globular Clusters, and their Connections to Gravitational Wave Anisotropies*
Lake, W., Naoz, S., Chiou, Y.S., Burkhart, B., Marinacci, F., Vogelsberger, M., **Kremer, K.,** 2021, ApJ, 922, 86
23. *Matching globular cluster models to observations*
Rui, N.Z., **Kremer, K.,** Weatherford, N.C., Chatterjee, S., Rasio, F.A., Rodriguez, C.L., Ye., C.S., 2021, ApJ, 912, 102
22. *Intermediate-mass Black Holes from High Massive-star Binary Fractions in Young Star Clusters*
González, E., **Kremer, K.,** Chatterjee, S., Fragione, G., Roderiguez, C.L., et al. 2021, ApJ, 928, L29
21. *Gravitational Waves as a Probe of Globular Cluster Formation and Evolution*
Romero-Shaw, I., **Kremer, K.,** Lasky, P., Thrane, E., Samsing, J. 2021, MNRAS, 506, 2362
20. *Black hole mergers from star clusters with top-heavy initial mass functions*
Weatherford, N.C., Fragione, G., **Kremer, K.,** Ye, C.S., Rasio, F. A., 2021, ApJ, 907, 25L
19. *Joint constraints on the field-cluster mixing fraction, common envelope efficiency, and globular cluster radii from a population of binary hole mergers via deep learning*
Wong, K., Breivik, K., **Kremer, K.**, Callister, T. 2021, PRD, 103, 083021
18. *Neutron Star-Black Hole Mergers from Gravitational Wave Captures*
Hoang, B.-M., Naoz, S., **Kremer, K.** 2020, ApJ, 903, 8
17. *Black Hole Mergers from Hierarchical Triples in Dense Star Clusters*
Martinez, M. A. S., Fragione, G., **Kremer, K.,** et al. 2020, ApJ, 903, 67
16. *Demographics of triple systems in dense star clusters*
Fragione, G., Martinez, M. A. S., **Kremer, K.,** et al. 2020, ApJ, 900, 16
15. *GW190412 as a third-generation black hole merger from a super star cluster*
Rodriguez, C. L., **Kremer, K.,** Grudić, M., Hafen, Z., et al. 2020, ApJ, 896, L10
14. *Illuminating black hole cusp populations in young star clusters*
Kaaz, N., **Kremer, K.,** Auchettl, K., Ramirez-Ruiz, E. 2020, ApJ, 917, 36
13. *Gravitational-wave captures by intermediate-mass black holes in galactic nuclei*
Fragione, G., Loeb, A. **Kremer, K.,** Rasio, F. A., 2020, ApJ, 897, 46
12. *A dynamical survey of stellar-mass black holes in 50 Milky Way globular clusters*
Weatherford, N.C., Chatterjee, S., **Kremer, K.,** Rasio, F. A., 2020, ApJ, 898, 162
11. *COSMIC variance in binary population synthesis*
Breivik, K., Coughlin, S.C., Zevin, M., Rodriguez, C.L., **Kremer, K.,** et al. 2020, ApJ, 898, 71

10. *On the rate of binary neutron star mergers in globular clusters*
    Ye, C.S., Fong, W.-F., **Kremer, K.,** Rodriguez, C.L., Chatterjee, S., Fragione, G., Rasio, F.A., 2020, ApJ, 888, L10
9. *Gravitational-wave captures of single black holes in globular clusters*
    Samsing, J., D'Orazio, D.J., **Kremer, K.,** Rodriguez, C.L., Askar, A. 2019, PRD, 101, 123010
8. *Can neutron-star mergers explain the r-process enrichment in globular clusters?*
    Zevin, M., **Kremer, K.,** Siegel, D.M., Coughlin, S., Tsang, B.T.-H., Berry, C.P.L., Kalogera, V. 2019, ApJ, 886, 4
7. *Black holes: The next generation – Repeated mergers in dense star clusters and their GW properties*
    Rodriguez, C.L., Zevin, M., Amaro-Seoane, P., Chatterjee, S., **Kremer, K.**, et al. 2019, PRD, 100, 043027
6. *Probing the black hole merger history in clusters using stellar tidal disruptions*
    Samsing, J. et al. (including **Kremer, K.**) 2019, PRD, 100, 043009
5. *In search of the thermal eccentricity distribution*
    Geller, A.M., Leigh, N.W.C., Giersz, M., **Kremer, K.,** Rasio, F.A., 2019, ApJ, 872, 165
4. *Millisecond pulsars and black holes in globular clusters*
    Ye, C.S., **Kremer, K.**, Chatterjee, S., Rodriguez, C.L., Rasio, F.A. 2019, ApJ, 877, 122
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