

## Statistics

Number of first author articles	...	26
Refereed Articles	...	21
Preprints/journal submissions	...	4
Citations	...	435
h index (HEP-SPIRES)	...	12

## First-author refereed/under-review publications

1. **H.-J. Kuan**, I. Markin, M. Ujevic, T. Dietrich, K. Kiuchi, M. Shibata, W. Tichy. The error budget of binary neutron star merger simulations for configurations with high spin. [arXiv:2506.02115](#).
2. **H.-J. Kuan**, K. Kiuchi, M. Shibata. Tidal Resonance in Binary Neutron Star Inspiral: A High-Precision Study in Numerical Relativity. [arXiv:2411.16850](#).
3. **H.-J. Kuan** and K. D. Kokkotas. Last three seconds: Packed message delivered by tides in binary neutron star mergers. [Phys. Rev. D 108:063026, September 2023](#).
4. **H.-J. Kuan**, K. V. Van Aelst, A. T. L. Lam and M. Shibata. Binary neutron star mergers in massive scalar-tensor theory: Quasiequilibrium states and dynamical enhancement of the scalarization. [Phys. Rev. D 108:064057, September 2023](#).
5. **H.-J. Kuan**, A. G. Suvorov and K. D. Kokkotas. Measuring spin in coalescing binaries of neutron stars showing double precursors. [Astron. Astrophys., 676\(2\):A59, June 2023](#).
6. **H.-J. Kuan**, A. T. L. Lam, D. D. Doneva, S. S. Yazadjiev, M. Shibata and K. Kiuchi. Dynamical scalarization during neutron star mergers in scalar-Gauss-Bonnet theory. [Phys. Rev. D 108:063033, September 2023](#).
7. **H.-J. Kuan** and K. D. Kokkotas.  $f$ -mode imprints on gravitational waves from coalescing binaries involving aligned spinning neutron stars. [Phys. Rev. D 106:064052, September 2022](#).
8. **H.-J. Kuan**, A. G. Suvorov, D. D. Doneva and S. S. Yazadjiev. Gravitational Waves from Accretion-Induced Descalarization in Massive Scalar-Tensor Theory. [Phys. Rev. Lett. 129:121104, September 2022](#).
9. **H.-J. Kuan**, C. J. Krüger, A. G. Suvorov and K. D. Kokkotas. Constraining equation of state groups from  $g$ -mode asteroseismology. [MNRAS, 513\(3\):4045-4056, April 2022](#).
10. **H.-J. Kuan**, J. Singh, D. D. Doneva, S. S. Yazadjiev, and K. D. Kokkotas. Nonlinear evolution and nonuniqueness of scalarized neutron stars. [Phys. Rev. D, 104:124013, December 2021](#). [10.1103/PhysRevD.104.124013](#).
11. **H.-J. Kuan**, A. G. Suvorov and K. D. Kokkotas. General-relativistic treatment of tidal  $g$ -mode resonances in coalescing binaries of neutron stars. II. As triggers for precursor flares of short gamma-ray bursts. [MNRAS, 508\(2\):1732-1744, December 2021](#).
12. **H.-J. Kuan**, D. D. Doneva, and S. S. Yazadjiev. Dynamical Formation of Scalarized Black Holes and Neutron Stars through Stellar Core Collapse. [Phys. Rev. Lett., 127:161103, October 2021](#).
13. **H.-J. Kuan**, A. G. Suvorov, and K. D. Kokkotas. General-relativistic treatment of tidal  $g$ -mode resonances in coalescing binaries of neutron stars - I. Theoretical framework and crust breaking. [MNRAS, 506\(2\):2985-2998, September 2021](#).

## Second-author refereed/under-review publications

1. A. G. Suvorov, **H.-J. Kuan**, K. D. Kokkotas. Premerger phenomena in neutron-star binary coalescences. [Universe 10 \(2024\) 441, November 2024](#).
2. A. T.-L. Lam, **H.-J. Kuan**, M. Shibata, K. Van Aelst, K. Kiuchi. Binary neutron star mergers in massive scalar-tensor theory: Properties of post-merger remnants. [Phys.Rev.D 110:104018, November 2024](#).
3. A. G. Suvorov, **H.-J. Kuan**, Alexis Reboul-Salze and K. D. Kokkotas. Magnetic amplification in pre-merger neutron stars through resonance-induced magnetorotational instabilities. [Phys.Rev.D 109:103023, May 2024](#).
4. A. G. Suvorov, **H.-J. Kuan** and K. D. Kokkotas. Quasi-periodic oscillations in precursor flares via seismic aftershocks from resonant shattering. [Astron. Astrophys. 664:A177, August 2022](#).
5. C. Q. Geng, **H.-J. Kuan**, and L. W. Luo. Inverse-chirp imprint of gravitational wave signals in scalar tensor theory. [Eur. Phys. J. C, 80:780, August 2020](#).
6. C. Q. Geng, **H.-J. Kuan**, and L. W. Luo. Viable Constraint on Scalar Field in Scalar-Tensor Theory. [Class. Quant. Grav., 37:115001, May 2020](#).

## Other co-authored refereed/under-review publications

1. A. Reboul-Salze, A. Astoul, **H.-J. Kuan**, A. G. Suvorov. Non-linear saturation of gravito-inertial modes excited by tidal resonances in binary neutron stars. [arXiv:2503.24154](#).
2. Y. Gao, K. Hayashi, K. Kiuchi, A. T.-L. Lam, **H.-J. Kuan**, M. Shibata. Convective stability analysis of massive neutron stars formed in binary mergers. [arXiv:2501.19053](#).
3. A. T.-L. Lam, K. V. Staykov, **H.-J. Kuan**, D. D. Doneva, S. S. Yazadjiev. Axisymmetric stability of neutron stars as extreme rotators in massive scalar-tensor theory. [Phys. Rev. D 111:104030, May 2025](#).
4. A. T.-L. Lam, Yong Gao, **H.-J. Kuan**, M. Shibata, K. Van Aelst, K. Kiuchi. Accessing universal relations of binary neutron star waveforms in massive scalar-tensor theory. [Phys. Rev. Lett. 134:151402, April 2025](#). [Research highlight: [Page](#)]
5. V. Brdar, T. Cheng, **H.-J. Kuan**, and Y.-Y. Li. Magnetar-powered neutrinos and magnetic moment signatures at IceCube. [JCAP 07:026, July 2024](#).
6. D. Huang, C. Q. Geng, and **H.-J. Kuan**. Scalar gravitational wave signals from core collapse in massive scalar-tensor gravity with triple-scalar interactions. [Class. Quant. Grav., 38:245006, November 2021](#).

## Many Author publications

1. Adrian Abac, et. al.. The Science of the Einstein Telescope. [ET-0036C-25](#).