

# Publications

## 1 Peer reviewed

- **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. doi:[10.1103/PhysRevD.106.064052](https://doi.org/10.1103/PhysRevD.106.064052).
- **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. doi:[10.1103/PhysRevLett.129.121104](https://doi.org/10.1103/PhysRevLett.129.121104).
- 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. doi:[10.1051/0004-6361/202244082](https://doi.org/10.1051/0004-6361/202244082)
- **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. doi:[10.1093/mnras/stac1101](https://doi.org/10.1093/mnras/stac1101)
- **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. doi:[10.1103/PhysRevD.104.124013](https://doi.org/10.1103/PhysRevD.104.124013).
- **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. doi:[10.1093/mnras/stab2658](https://doi.org/10.1093/mnras/stab2658).
- 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. doi:[10.1088/1361-6382/ac35ab](https://doi.org/10.1088/1361-6382/ac35ab).
- **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. doi:[10.1103/PhysRevLett.127.161103](https://doi.org/10.1103/PhysRevLett.127.161103).
- **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. doi:[10.1093/mnras/stab1898](https://doi.org/10.1093/mnras/stab1898).
- 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. doi:[10.1140/epjc/s10052-020-8359-y](https://doi.org/10.1140/epjc/s10052-020-8359-y).
- 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. doi:[10.1088/1361-6382/ab86fb](https://doi.org/10.1088/1361-6382/ab86fb).

## 2 Preprints

- **H.-J. Kuan**, A. G. Suvorov and K. D. Kokkotas. Measuring spin in coalescing binaries of neutron stars showing double precursors. e-Print: [2304.07170](https://arxiv.org/abs/2304.07170)
- **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. e-Print: [2302.11596](https://arxiv.org/abs/2302.11596)