PUBLICATIONS: DONG LAI

http://hosting.astro.cornell.edu/~dong/research.html

REFEREED PAPERS

(* indicates student or postdoc directly supervised by DL)

- 1. D. Lai, A. M. Abrahams and S. L. Shapiro 1991 "Equation of State in Metals and Cold Stars: Evaluation of Statistical Models", *Astrophysical Journal*, **377**, 612-628.
- 2. D. Lai and S. L. Shapiro 1991, "Cold Equation of State in a Strong Magnetic Field: Effects of Inverse β -Decay", Astrophysical Journal, **383**, 745-751.
- 3. D. Lai, E. E. Salpeter and S. L. Shapiro 1992, "Hydrogen Molecules and Chains in a Superstrong Magnetic Field", *Physical Review A*, **45**, 4832-4847.
- 4. D. Lai, F. A. Rasio and S. L. Shapiro 1993, "Ellipsoidal Figures of Equilibrium: Compressible Models", Astrophysical Journal Supplements, 88, 205-252.
- 5. D. Lai, F. A. Rasio and S. L. Shapiro 1993, "Hydrodynamic Instability and Coalescence of Close Binary Systems", *Astrophysical Journal Letters*, **406**, L63-66.
- 6. D. Lai, F. A. Rasio and S. L. Shapiro 1993, "Collisions and Close Encounters Between Massive Main-Sequence Stars", *Astrophysical Journal*, **412**, 593-611.
- 7. D. Lai, F. A. Rasio and S. L. Shapiro 1994, "Hydrodynamic Instability and Coalescence of Neutron Star Binaries", *Astrophysical Journal*, **420**, 811-829.
- 8. D. Lai, F. A. Rasio and S. L. Shapiro 1994, "Equilibrium, Stability and Orbital Evolution of Close Binary Systems", *Astrophysical Journal*, **423**, 344-370.
- 9. D. Lai 1994, "Resonant Oscillations and Tidal Heating in Coalescing Binary Neutron Stars", Monthly Notices of the Royal Astronomical Society, 270, 611-629.
- 10. D. Lai, F. A. Rasio and S. L. Shapiro 1994, "Hydrodynamics of Rotating Stars and Close Binary Interactions: Compressible Ellipsoid Models", *Astrophysical Journal*, **437**, 742-769.
- 11. D. Lai and S. L. Shapiro 1995, "Gravitational Radiation From Rapidly Rotating Nascent Neutron Stars", *Astrophysical Journal*, **442**, 259-272.
- 12. D. Lai and S. L. Shapiro 1995, "Hydrodynamics of Coalescing Binary Neutron Stars: Ellipsoidal Treatment", *Astrophysical Journal*, **443**, 705-716.
- 13. D. Lai 1995, "Superfluidity of Hydrogenlike Gas in a Strong Magnetic Field?", *Physical Review Letters*, **74**, 4095.
- 14. D. Lai, L. Bildsten and V. M. Kaspi 1995, "Spin-Orbit Interaction in Neutron Star/Main Sequence Binaries and Implications for Pulsar Timing", *Astrophysical Journal*, **452**, 819-824.
- 15. D. Lai and E. E. Salpeter 1995, "Motion and Ionization Equilibrium of Hydrogen Atoms in Superstrong Magnetic Field", *Physical Review A*, **52**, 2611-2623.
- 16. P. Goldreich, D. Lai and M. Sahrling 1996, "Globally Asymmetric Supernova", in *Unsolved Problems in Astrophysics*, ed. J. N. Bahcall and J. P. Ostriker (Princeton University press).
- 17. D. Lai and E. E. Salpeter 1996, "Hydrogen Molecules in a Superstrong Magnetic Field: Excitation Levels", *Physical Review A*, **53**, 152-167.
- 18. D. Lai 1996, "Tidal Stablization of Neutron Stars and White Dwarfs", *Physical Review Letters*, **76**, 4878-4881.

- 19. D. Lai 1996, "Orbital Decay of the PSR J0045-7319/B Star Binary System: Age of Radio Pulsar and the Initial Spin of Neutron Star", Astrophysical Journal Letters, 466, L35-L38.
- D. Lai and A. G. Wiseman 1996, "Innermost Stable Circular Orbit of Inspiraling Neutron-Star Binaries: Tidal Effects, Post-Newtonian Effects and the Neutron-Star Equation of State", Physical Review D., 54, 3958-3964.
- 21. D. Lai and E. E. Salpeter 1997, "Hydrogen Phases on the Surface of a Strongly Magnetized Neutron Star", Astrophysical Journal, 491, 270-285.
- 22. D. Lai 1997, "Dynamical Tides in Rotating Binary Stars", Astrophysical Journal, 490, 847-862.
- 23. D. Lai and Yong-Zhong Qian 1998, "Parity Violation in Neutrino Transport and the Origin of Pulsar Kicks", *Astrophysical Journal Letters*, **495**, L103-L106.
- 24. D. Lai 1998, "Transonic Magnetized Accretion Disks and kilo-Hertz Quasi-Periodic Oscillations in Low-Mass X-Ray Binaries", Astrophysical Journal, **502**, 721-729.
- D. Lai and Yong-Zhong Qian 1998, "Neutrino Transport in Strongly Magnetized Proto-Neutron Stars and the Origin of Pulsar Kicks: The Effect of Asymmetric Magnetic Field Topology", Astrophysical Journal, 505, 844-853.
- 26. P. Arras* and D. Lai 1999, "Can Parity Violation in Neutrino Transport Lead to Pulsar Kicks?", Astrophysical Journal, **519**, 745-749.
- 27. P. Arras* and D. Lai 1999, "Neutrino-Nucleon Interactions in Magnetized Neutron-Star Matter: The Effect of Parity Violation", *Physical Review*, **D60**, 043001(1-28).
- 28. D. Lai 1999, "Secular Instability of g-modes in Rotating Neutron Stars", Monthly Notices of Royal Astronomical Society, **307**, 1001-1007.
- 29. W.C.G. Ho* and D. Lai 1999, "Resonant Tidal Excitations of Rotating Neutron Stars in Coalescing Binaries", Monthly Notices of Royal Astronomical Society, 308, 153-166.
- 30. D. Lai 1999, "Magnetically Driven Warping, Precession and Resonances in Accretion Disks", Astrophysical Journal, **524**, 1030-1047.
- 31. P. Wiggins* and D. Lai 2000, "Tidal Interaction between a Fluid Star and a Kerr Black Hole in Circular Orbit", *Astrophysical Journal*, **532**, 530-539.
- 32. D. Lai and P. Goldreich 2000, "Growth of Perturbation in Gravitational Collapse and Accretion", *Astrophysical Journal*, **535**, 402-411.
- 33. D. Lai 2000, "Global Nonradial Instabilities of Dynamically Collapsing Gas Spheres", *Astrophysical Journal*, **540**, 946-961.
- 34. W.C.G. Ho* and D. Lai 2000, "R-Mode Oscillations and Spindown of Young Rotating Magnetic Neutron Stars", Astrophysical Journal, **543**, 386-394.
- 35. D. Lai, D.F. Chernoff, and J.M. Cordes 2001, "Pulsar Jets: Implications for Neutron Star Kicks and Initial Spins", *Astrophysical Journal*, **549**, 1111-1118.
- 36. D. Lai 2001, "Matter in Strong Magnetic Fields", Review of Modern Physics, 73, 629-661 (astro-ph/0009333).
- 37. W.C.G. Ho* and D. Lai 2001, "Atmospheres and Spectra of Strongly Magnetized Neutron Stars", Monthly Notices of Royal Astronomical Society, 327, 1081-1096 (astro-ph/0104199).
- 38. A. Shirakawa* and D. Lai 2002, "Precession of Magnetically Driven Warped Disks and Low-Frequency Quasi-Periodic Oscillations in Low-Mass X-Ray Binaries", *Astrophysical Journal*, **564**, 361-368 (astro-ph/0012118).

- 39. A. Shirakawa* and D. Lai 2002, "Magnetically Driven Precession of Warped Disks and Milli-Hertz Variabilities in Accreting X-Ray Pulsars", *Astrophysical Journal*, **565**, 1134-1140 (astro-ph/0109049).
- 40. D. Lai and W.C.G. Ho* 2002, "Resonant Conversion of Photon Modes Due to Vacuum Polarization in a Magnetized Plasma: Implications for X-Ray Emission from Magnetars", *Astrophysical Journal*, **566**, 373-377 (astro-ph/0108127).
- 41. W.C.G. Ho*, D. Lai, A. Potekhin & G. Chabrier 2003, "Atmospheres of Magnetized Neutron Stars: Vacuum Polarization and Partially Ionized Models", *Advance in Space Research*, **33(4)**, 537-541 (astro-ph/0212077)
- 42. W.C.G. Ho* and D. Lai 2003, "Atmospheres and Spectra of Strongly Magnetized Neutron Stars: Effect of Vacuum Polarization", Monthly Notices of Royal Astronomical Society, 338, 233-252
- 43. D. Lai and W.C.G. Ho^{*} 2003, "Transfer of Polarized Radiation in Strongly Magnetized Plasmas and Thermal Emission from Magnetars: Effect of Vacuum Polariztion", *Astrophysical Journal*, **588**, 962-974 (astro-ph/021131)
- 44. D. Lai and W.C.G. Ho* 2003, "Polarized X-Ray Emission from Magnetized Neutron Stars: Signature of Strong-Field Vacuum Polarization", *Physical Review Letters*, **91**, 071101 (astro-ph/0303596)
- 45. D. Lai 2003, "Warping of Accretion Disks with Magnetically Driven Outflows: A Possible Origin for Jet Precession", Astrophysical Journal Letters, **591**, L119-L122
- 46. W.C.G. Ho*, D. Lai, A. Potekhin & G. Chabrier 2003, "Hydrogen Atmospheres of Magnetized Neutron Stars: Partially Ionized Models", *Astrophysical Journal*, **599**, 1293-1301
- 47. H. Pfeiffer*, & D. Lai 2004, "Warping and Precession for Accretion Disks Around Magnetic Stars: Nonlinear Evolution', Astrophysical Journal, **604**, 766-774.
- 48. W.C.G. Ho^{*} and D. Lai 2004, "Spectral Features in the Thermal Emission from Isolated Neutron Stars: Dependence on Magnetic Field Strengths", Astrophysical Journal, **607**, 420-425
- 49. A. Potekhin, D. Lai, G. Chabrier and W.C.G. Ho* 2004, "Electromagnetic polarization in partially ionized plasmas with strong magnetic fields and neutron star atmosphere models", *Astrophysical Journal*, **612**, 1034-1043 (astro-ph/0405383)
- 50. D. Lai, and Roman R. Rafikov 2005, "Effects of Gravitational Lensing in the Double Pulsar System J0737-3039", Astrophysical Journal Letters, 621, L41-L44
- 51. M. van Adelsberg*, D. Lai, A. Potekhin and P. Arras* 2005, "Radiation from Condensed Surface of Magnetic Neutron Stars" Astrophysical Journal, 628, 902-913
- 52. A. Potekhin, D. Lai, G. Chabrier and W.C.G. Ho* 2005, "Partially ionized atmospheres of neutron stars with strong magnetic fields", *Adv. Space. Research*, **35**, 1158-1161 (astro-ph/0501467)
- Chen Wang*, Dong Lai and JinLin Han 2005, "Neutron Star Kicks in Isolated and Binary Pulsars: Observational Constraints and Implications for Kick Mechanisms", Astrophysical Journal, 639, 1007-1017.
- 54. A. Potekhin, G. Chabrier, D. Lai, W. Ho* and M. van Adelsberg* 2006, "Nonideal Strongly Magnetized Plasmas of Neutron Stars and Their Electromagnetic Radiation", *Journal of Physics A: Matt. Gen.* **39**, 4453-4458.
- 55. Roman R. Rafikov and D. Lai 2006, "Effects of Pulsar Rotation on Timing Measurements of the Double Pulsar System J0737-3039", Astrophysical Journal, 641, 438-446.
- 56. Hang Zhang and Dong Lai 2006, "Wave Excitation in Three-Dimensional Disks by External Potential", Monthly Notices of Royal Astronomical Society, 368, 917-934.

- 57. Roman R. Rafikov and Dong Lai 2006, "Effects of Gravitational Lensing and Companion Motion on the Binary Pulsar Timing", *Physical Review D* 73, 063003
- 58. Dong Lai and Yanqin Wu 2006, "Resonant Tidal Excitations of Inertial Modes in Coalescing Neutron Star Binaries", *Physical Review D* **D 74**, 024007 (astro-ph/0604163)
- 59. Alice K. Harding and Dong Lai 2006, "Physics of Strongly Magnetized Neutron Stars", Report of Progress of Physics 69, 2631 (astro-ph/0606674)
- 60. Zach Medin* and Dong Lai 2006, "Density-Funcational-Theory Calculations of Matter in Strong Magnetic Fields: I. Atoms and Molecules", *Physical Review*, A 74, 062507 (astro-ph/0607166)
- Zach Medin* and Dong Lai 2006, "Density-Funcational-Theory Calculations of Matter in Strong Magnetic Fields: II. Infinite Chains and Condensed Matter", *Physical Review*, A 74, 062608 (astro-ph/0607277)
- 62. Matt van Adelsberg* and Dong Lai 2006, "Atmospehere Models of Magnetized Neutron Stars: QED Effects, Radiation Spectra and Polarization Signals", Monthly Notice of Royal Astronomical Society, 373, 1495-1522 (astro-ph/0607168)
- 63. Dong Lai and Jeremy Heyl 2006, "Probing Axions with Radiation From Magnetic Stars", *Physical Review*, **D 74**, 123003 (astro-ph/0609775)
- 64. Chen Wang*, Dong Lai and JinLin Han 2007, "Spin-Kick Correlation in Neutron Stars: Alignment Conditions and Implications", Astrophysical Journal, 656, 399-407 (astro-ph/0607666)
- Chen Wang* and Dong Lai 2007, "Wave Modes in the Magnetospheres of Pulsars and Magnetars", Monthly Notice of Royal Astronomical Society, 377, 1095-1112 (astro-ph/0611924)
- A.Y. Potekhin and Dong Lai 2007, "Statistical equilibrium and ion cyclotron absorption/emission in strongly magnetized plasmas", Monthly Notice of Royal Astronomical Society, 376, 793-808 (astro-ph/0701285)
- 67. Zach Medin* and Dong Lai 2007, "Cohesive property of magnetized neutron star surfaces: Computations and implications", Advances in Space Research, 40, 1466-1471 (astro-ph/0701271)
- 68. Andreas Reisenegger, Rafael Benguria, Joaquin P. Prieto, Pablo A. Araya, Dong Lai 2007, "Hall drift of axisymmetric magnetic fields in solid neutron-star matter", Astronomy & Astrophysics, 472, 233-240 (astro-ph/arXiv:0705.1901)
- Zach Medin* and Dong Lai 2007, "Condensed Surfaces of Magnetic Neutron Stars, Thermal Surface Emission, and Particle Acceleration Above Pulsar Polar Caps", Monthly Notice of Royal Astronomical Society, 382, 1833-1852 (astro-ph/arXiv:0708.3863)
- 70. Zach Medin*, Dong Lai and A.Y. Potekhin 2008, "Radiative transitions of the helium atom in highly magnetized neutron star atmospheres", Monthly Notice of Royal Astronomical Society, 383, 161-172 (astro-ph/arXiv:0704.1598)
- 71. Dong Lai and Hang Zhang 2008, "Wave Excitation in Disks Around Magnetic Stars", *The Astro-physical Journal*, **683**, 949 (astro-ph/arXiv:0709.3086)
- 72. David Tsang* and Dong Lai 2008, "Super-reflection in Discs: Corotation Amplifier, Corotation Resonance, Rossby Waves and Overstable Oscillation Modes", Monthly Notice of Royal Astronomical Society, 387, 446-462 (arXiv:0710.2313)
- 73. Wen Fu* and Dong Lai 2009, "Effects of Magnetic Fields on the Diskoseismic Modes of Accreting Black Holes", The Astrophysical Journal, **690**, 1386-1392 (arXiv:0806.1938)
- 74. Dong Lai and David Tsang* 2009, "Corotational Instability of Inertial-Acoustic Modes in Black Hole Accretion Discs and Quasi-Periodic Oscillations", MNRAS, 393, 979-991 (arXiv:0810.0203)

- 75. David Tsang* and Dong Lai 2009, "Corotational Damping of Diskoseismic C-modes in Black Hole Accretion Discs", MNRAS, 393, 992-998 (arXiv:0810.1299)
- 76. David Tsang* and Dong Lai 2009, "Interface modes and their instabilities in accretion disc boundary layers", MNRAS, 396, 589-597 (arXiv:0812.3995)
- 77. Chen Wang* and Dong Lai 2009, "Polarization Evolution in a Strongly Magnetized Vacuum: QED Effect and Polarized X-ray Emission from Magnetized Neutron Stars", MNRAS, 398, 515-527 (arXiv:0903.2094)
- 78. David Tsang* and Dong Lai 2009, "Corotational Instability of Inertial-Acoustic Modes in Black-Hole Accretion Discs: Non-Barotropic Flows", MNRAS, 400, 470-479 (arXiv:0906.4392)
- 79. Chen Wang*, Dong Lai and JinLin Han 2010, "Polarization changes of pulsars due to wave propagation through magnetospheres", MNRAS, 403, 569-588 (arXiv:0910.2793)
- 80. Zach Medin* and Dong Lai 2010, "Pair cascades in the magnetospheres of strongly-magnetized neutron stars", MNRAS, 406, 1379-1404 (arXiv:1001.2365)
- 81. Dong Lai, Ch. Helling and E. van den Huevel 2010, "Mass Transfer, Transiting Stream and Magnetopause in Close-in Exoplanetary Systems with Applications to WASP-12", ApJ, 721, 923-928 (arXiv:1005.4497)
- 82. Wen Fu^{*} and Dong Lai 2011, "Corotational Instability, Magnetic Resonances and Global Inertial-Acoustic Oscillations in Magnetized Black-Hole Accretion Discs", MNRAS, 410, 399-416 (arXiv:1006.3763)
- 83. Wen Fu* and Dong Lai 2011, "Papaloizou-Pringle Instability of Magnetized Accretion Tori", MN-RAS, 410, 1617-1630 (arXiv:1006.3824)
- 84. James Fuller* and Dong Lai 2011, "Tidal Excitation of Oscillation Modes in Compact White Dwarf Binaries: I. Linear Theory", MNRAS, 412, 1331-1340 (arXiv:1009.3316)
- 85. Dong Lai, Francois Foucart* and Douglas N.C. Lin 2011, "Evolution of Spin Direction of Accreting Magnetic Protostars and Spin-Orbit Misalignment in Exoplanetary Systems", MNRAS, 412, 2790-2798 (arXiv:1008.3148)
- 86. Francois Foucart* and Dong Lai 2011, "Evolution of Spin Direction of Accreting Magnetic Protostars and Spin-Orbit Misalignment in Exoplanetary Systems: II. Warped Discs", MNRAS, 412, 2799-2815 (arXiv:1009.3233)
- 87. Jeremy Leconte, Dong Lai and Gilles Chabrier 2011, "Distorted, non-spherical transiting planets: Impact on the transit depth and on the radius determination", A&A, 528, A41 (arXiv:1101.2813)
- 88. Wen Fu* and Dong Lai 2011, "Low-T/|W| instabilities in differentially rotating proto-neutron stars with magnetic fields", MNRAS, 413, 2207-2217 (arXiv:1011.4887)
- 89. Chen Wang, JinLin Han and Dong Lai 2011, "The Faraday Rotation in Pulsar Magnetosphere", MNRAS, 417, 1183 (arXiv:1105.2602)
- 90. Fuller*, J., & Lai, D. 2011, "Dynamical Tides in Eccentric Binaries and Tidally-Excited Stellar Pulsations in KEPLER KOI-54", MNRAS, 420, 3126-3138 (arXiv:1107.4594)
- 91. Fuller*, J., & Lai, D. 2012, "Dynamical Tides in Compact White Dwarf Binaries: Tidal Synchronization and Dissipation", MNRAS, 421, 426-445 (arXiv:1108.4910)
- 92. Lai, D. 2012, "Tidal Dissipation in Planet-Hosting Stars: Damping of Spin-Orbit Misalignment and Survival of Hot Jupiters", MNRAS, 423, 486-492 (arXiv:1109.4703)
- 93. Shabaltas*, N., & Lai, D. 2012, "The Hidden Magnetic Field of The Young Neutron Star in Kesteven 79", ApJ, 748, 148 (arXiv:1110.3129)

- 94. Fu*, W., & Lai, D. 2012, "Dynamics of the Innermost Accretion Flows Around Compact Objects: Magnetosphere-Disc Interface, Global Oscillations and Instabilities", MNRAS, 423, 831-843 (arXiv:1201.5370)
- 95. Meheut, H., Yu, C., & Lai, D. 2012, "Rossby Wave Instability in 3D Discs", MNRAS, 422, 2399-2406 (arXiv:1203.0471)
- 96. Fuller*, J., & Lai, D. 2012, "Tidal Novae in Compact Binary White Dwarfs", ApJ, 756, L17 (arXiv:1206.0470)
- 97. Lai, D. 2012, "DC Circuit Powered by Orbital Motion: Magnetic Interactions in Compact Object Binaries and Exoplanetary Systems", ApJ, 757, L3 (arXiv:1206.3723)
- 98. Fuller*, J., & Lai, D. 2013, "Dynamical Tides in Compact White Dwarf Binaries: Helium Core White Dwarfs, Tidal Heating, and Observational Signatures", MNRAS, 430, 274-287 (arXiv:1211.0624)
- 99. Yu, C., & Lai, D. 2013, "Rossby Wave Instability in Accretion Discs with Large-Scale Poloidal Magnetic Fields", MNRAS, 429, 2748 (arXiv:1212.1219)
- Foucart, F. & Lai, D. 2013, "Assembly of Protoplanetary Disks and Inclinations of Circumbinary Planets", ApJ, 764, 106 (arXiv:1211.3721)
- 101. Fu*, W. & Lai, D. 2013, "Simulations of Overstable Inertial-acoustic Modes in Black-Hole Accretion Discs", MNRAS, 431, 3697 (arXiv:1212.2215)
- Meheut, H., Lovelace, R.V.E., & Lai, D. 2013, "How Strong are the Rossby Vortices?", MNRAS, 430, 1988-1993 (arXiv:1301.0689)
- 103. Horak, J. & Lai, D. 2013, "Corotation Resonance and Overstable Oscillations in Black-Hole Accretion Discs: General-Relativistic Calculations", MNRAS, 434, 2761-2771 (arXiv:1307.8077)
- 104. Soffitta, P., et al. 2013, "XIPE: the X-ray Imaging Polarimetry Explorer", Experimental Astronomy, 36, 523-567 (arXiv:1309.6995)
- 105. Storch*, N.I., & Lai, D. 2014, "Viscoelastic Tidal Dissipation in Giant Planets and Formation of Hot Jupiters Through High-Eccentricity Migration", MNRAS, 438, 1526-1534 (arXiv:1308.4968)
- 106. Fuller*, J., Lai, D., Storch*, N.I. 2014, "Non-radial Oscillations in Rotating Giant Planets with Solid Cores: Application to Saturn and its Rings", Icarus, 231, 34-50 (arXiv:1309.0045)
- Lai, D. 2014, "Star-Disc-Binary Interactions in Protoplanetary Disc Systems and Primordial Spin-Orbit Misalignments", MNRAS, 440, 3532-3544 (arXiv:1402.1907)
- 108. Storch*, N.I.,Ho*, W.C.G., Lai, D., Bogdanov, S., Heinke, C.O. 2014, "The Light Curve and Internal Magnetic Field of the Mode-switching Pulsar PSR B0943+10", ApJ, 789, L27 (arXiv:1405.1475)
- 109. Fuller*, J. and Lai, D. 2014, "Dynamical Tides in Compact White Dwarf Binaries: Influence of Rotation", MNRAS, 444, 3488 (arXiv:1406.2717)
- 110. Storch*, N.I., Anderson*, K.R., and Lai, D. 2014, "Chaotic Dynamics of Stellar Spin in Binaries and the Production of Misaligned Hot Jupiters", Science, 345, 1317 (arXiv:1409.3247)
- 111. Foucart, F. and Lai, D. 2014 "Evolution of linear warps in accretion discs and applications to protoplanetary discs in binaries", MNRAS, 445, 1731-1744 (arXiv:1406.3331)
- 112. Miranda*, R., Horak, J. and Lai, D. 2015 "Viscous Driving of Global Oscillations in Accretion Discs Around Black Holes", MNRAS, 446, 240-253 (arXiv:1408.0800)
- 113. Liu*, B., Munoz*, D.J. and Lai, D. 2015 "Suppression of extreme orbital evolution in triple systems with short range forces", MNRAS, 447, 747-764 (arXiv:1409.6717)

- 114. Storch*, N., and Lai, D. 2015 "Chaotic Dynamics of Stellar Spin Driven by Planets Undergoing Lidov-Kozai Oscillations: Resonances and Origin of Chaos", MNRAS, 448, 1821-1834 (arXiv:1411.0739)
- 115. Yu, C., and Lai, D. 2015 "Inertial-Acoustic Oscillations of Black-Hole Accretion Discs with Large-Scale Poloidal Magnetic Fields", MNRAS, 450, 2466-2472 (arXiv:1501.05727)
- 116. Storch*, N.I., Lai, D. 2015 "Analytical Model of Tidal Distortion and Dissipation for a Giant Planet with a Viscoelastic Core", MNRAS, 450, 3952-3957 (arXiv:1502.06550)
- 117. Zanazzi*, J.J., and Lai, D. 2015 "Electromagnetic Torques, Precession and Evolution of Magntiec Inclination of Pulsars", MNRAS, 451, 5214-5223 (arXiv:1503.01486)
- 118. Miranda*, R., and Lai, D. 2015 "Tidal Truncation of Inclined Circumstellar and Circumbinary Disks in Young Stellar Systems", MNRAS, 452, 2396-2409 (arXiv:1504.02917)
- 119. Munoz*, D.J., and Lai, D. 2015 "Survival of Planets Around Shrinking Stellar Binaries", PNAS, 112, 9264-9269 (arXiv:1505.05514)
- Kirichenko, A., Shibanov, Yu, et al. 2015 "Observations of PSR J1357-6429 at 2.1 GHz with the ATCA", MNRAS, 452, 3273-3280 (arXiv:1506.07498)
- 121. Liu*, B., Lai, D., and Yuan, Y. 2015, "Merging Compact Binaries in Hierarchical Triple Systems: Resonant Excitation of Binary Eccentricity", Phys. Rev. D 92, 124048 (arXiv:1511.07365)
- 122. Anderson*, K.R., Storch*, N.I., and Lai, D. 2016 "Formation and Stellar Spin-Orbit Misalignment of Hot Jupiters from Lidov-Kozai Oscillations in Stellar Binaries", MNRAS, 456, 3671-3701 (arXiv:1510.08918)
- 123. Wang, C., and Lai, D. 2016 "Axion-Photon Propagation in Magnetized Universe", JCAP, 6, 006 (arXiv:1511.03380)
- 124. Miranda*, R., Lai, D., and Meheut, H. 2016 "Rossby Wave Instability and Long-Term Evolution of Dead Zones in Protoplanetary Disks", MNRAS, 457, 1944-1957 (arXiv:1512.04450)
- 125. Xu*, W., and Lai, D. 2016 "Disruption of Planetary Orbits Through Evection Resonance with an External Companion: Circumbinary Planets and Multiplanet Systems", MNRAS, 459, 2925-2939 (arXiv:1602.04751)
- 126. Munoz*, D. J., Lai, D., and Liu*, B. 2016 "The formation efficiency of close-in planets via Lidov-Kozai migration: analytic calculations", MNRAS, 460, 1086-1093 (arXiv:1601.05814)
- 127. Munoz*, D. J., and Lai, D. 2016, "Pulsed Accretion onto Eccentric and Circular Binaries", ApJ, 827, 43 (arXiv:1604.00004)
- 128. Lai, D. 2016, "Solar Obliquity Induced by Planet Nine: Simple Calculation", AJ, 152, 215 (arXiv:1608.01421)
- 129. Zanazzi, J.J.*, and Lai, D. 2017, "Extended Transiting Disks and Rings Around Planets and Brown Dwarfs: Theoretical Constraints", MNRAS, 464, 3945-3954 (arXiv:1605.02365)
- 130. Lai, D., and Pu, B.* 2017, "Hiding Planets Behind a Big Friend: Mutual Inclinations of Multi-Planet Systems with External Companions", AJ, 153, 42 (arXiv:1606.08855)
- 131. Storch, N.I.*, Lai, D., and Anderson, K.R.* 2017, "Dynamics of Stellar Spin Driven by Planets Undergoing Lidov-Kozai Migration: Paths to Spin-Orbit Misalignment", MNRAS, 465, 3927-3942 (arXiv:1606.08855)
- 132. Anderson, K.R.*, Lai, D., Storch, N.I.* 2017, "Eccentricity and Spin-Orbit Misalignment in Short-Period Stellar Binaries as a Signpost of Hidden Tertiary Companions", MNRAS, 467, 3066-3082 (arXiv:1610.02626)

- 133. Miranda, R.*, Munoz, D.J.*, Lai, D. 2017, "Viscous Hydrodynamics Simulations of Circumbinary Accretion Discs: Variability, Quasi-Steady State, and Angular Momentum Transfer", MNRAS, 466, 1170-1191 (arXiv:1610.07263)
- 134. Xu, Wenrui*, Lai, D. 2017, "Migration of Planets Into and Out of Mean Motion Resonances in Protoplanetary Disks: Analytical Theory of Second-Order Resonances", MNRAS, 468, 3223-3238 (arXiv:1611.06463)
- 135. Zanazzi, J.J.*, Lai, D. 2017, "Lidov-Kozai Mechanism in Hydrodynamical Disks: Linear Stability Analysis", MNRAS, 467, 1957-1964 (arXiv:1612.05598)
- 136. Vick, M.*, Lai, D., Fuller, J. 2017, "Tidal Dissipation and Evolution of White Dwarfs Around Massive Black Holes: an Eccentric Path to Tidal Disruption", MNRAS, 468, 2296-2310 (arXiv:1612.07316)
- 137. Zanazzi, J.J.*, Lai, D. 2017, "Triaxial Deformation and Asynchronous Rotation of Rocky Planets in the Habitable Zone of Low-Mass Stars", MNRAS, 469, 2879-2885 (arXiv:1702.07327)
- 138. Owen, J.E., Lai, D. 2017, "Generating large misalignments in gapped and binary discs", MNRAS, 469, 2834-2844 (arXiv:1703.09250)
- 139. Pichierri, G., Morbidelli, M., Lai, D. 2017, "Extreme Secular Excitation of Eccentricity Inside Mean Motion Resonance: Driving Small Bodies into Star-Grazing Orbits by Planetary Perturbations", A&A, 605, A23 (arXiv:1705.01841)
- 140. Hamers, A.S., Lai, D. 2017, "Secular chaotic dynamics in hierarchical quadruple systems, with applications to hot Jupiters in stellar binaries and triples", MNRAS, 470, 1657-1672 (arXiv:1705.02334)
- 141. Anderson, K.R.*, Lai, D. 2017, "Moderately Eccentric Warm Jupiters from Secular Interactions with Exterior Companions", MNRAS, 472, 3692-3705 (arXiv:1706.00084)
- 142. Liu, B.*, Lai, D. 2017, "Spin-Orbit Misalignment of Merging Black-Hole Binaries with Tertiary Companions", ApJ Letters, 846, L11 (arXiv:1706.02309)
- 143. Zanazzi, J.J.*, Lai, D. 2018, "Inclination Evolution of Protoplanetary Disks Around Eccentric Binaries", MNRAS, 473, 603-615 (arXiv:1706.07823)
- 144. Xu, Wenrui*, Lai, D. 2017, "Resonant Tidal Excitation of Oscillation Modes in Merging Binary Neutron Stars: Inertial-Gravity Modes", Phys. Rev. D 96, 083005 (arXiv:1708.01839)
- 145. Miranda, Ryan*, Lai, D. 2018, "Trapping of Low-Mass Planets Outside the Truncated Inner Edges of Protoplanetary Discs", MNRAS, 473, 5267-5274 (arXiv:1708.07872)
- 146. Vick, Michelle*, Lai, D. 2018, "Dynamical Tides in Highly Eccentric Binaries: Chaos, Dissipation and Quasi-Steady State", MNRAS, 476, 482-495 (arXiv:1708.09392)
- 147. Grishin, Evgeni, Lai, D., Perets, H.B. 2018, "Chaotic quadruple secular evolution and the production of misaligned exomoons and Warm Jupiters in stellar multiples", MNRAS, 474, 3547-3556 (arXiv:1710.05920)
- 148. Lai, D., Anderson, K.R.*, Pu, Bonan* 2018, "How do External Companions Affect Spin-Orbit Misalignment of Hot Jupiters?" MNRAS, 475, 5231-5236 (arXiv:1710.11140)
- 149. Zanazzi, J.J.*, Lai, D. 2018, "Planet Formation in Disks with Inclined Binary Companions: Can Primordial Spin-Orbit Misalignment be Produced?", MNRAS, 478, 835-851 (arXiv:1711.03138)
- 150. Zanazzi, J.J.*, Lai, D. 2018, "Effects of Disk Warping on the Inclination Evolution of Star-Disk-Binary Systems", MNRAS, 477, 5207-5219 (arXiv:1712.07655)
- 151. Cao, Xinwu, Lai, D. 2019, "Jet production in black-hole X-ray binaries and active galactic nuclei: mass feeding and advection of magnetic fields", MNRAS, 485, 1916 (arXiv:1712.09265)

- 152. Pu, Bonan*, Lai, D. 2018, "Eccentricities and Inclinations of Multi-Planet Systems with External Perturbers", MNRAS, 478, 197-217 (arXiv:1801.06220)
- 153. Liu, Bin*, Lai, D. 2018, "Black Hole and Neutron Star Binary Mergers in Triple Systems: Merger Fraction and Spin-Orbit Misalignment", ApJ, 863, 68 (arXiv:1805.03202)
- 154. Xu, Wenrui*, Lai, D., Morbidelli, A. 2018, "Migration of Planets Into and Out of Mean Motion Resonances in Protoplanetary Discs: Overstability of Capture and Nonlinear Eccentricity Damping", MNRAS, 481, 1538 (arXiv:1805.07501)
- 155. Anderson, K.R.*, Lai, D. 2018, "Teetering Stars: Resonant Excitation of Stellar Obliquities by Hot and Warm Jupiters with External Companions", MNRAS, 480, 1402 (arXiv:1806.07892)
- 156. Owen, J.E., Lai, D. 2018, "Photoevaporation and High-Eccentricity Migration Created the Sub-Jovian Desert", MNRAS, 479, 5012 (arXiv:1807.00012)
- 157. Liu, B.*, Lai, D. 2019, "Enhanced Black-Hole Mergers in Binary-Binary Interactions", MNRAS, 483, 4060-4069 (arXiv:1809.07767)
- 158. Munoz, D.J.*, Miranda, R.*, Lai, D. 2019, "Hydrodynamics of circumbinary accretion: Angular momentum transfer and binary orbital evolution", ApJ, 871, 84 (arXiv:1810.04676)
- 159. Vick, M.*, Lai, D., Anderson, K.R.* 2019, "Chaotic Tides in Migrating Gas Giants: Forming Hot and Transient Warm Jupiters via High-Eccentricity Migration", MNRAS, 484, 5645-5668 (arXiv:1812.05618)
- 160. MacLeod, M., Vick, M.*, Lai, D., Stone, J.M. 2019, "Polygram Stars: Resonant Tidal Excitation of Fundamental Oscillation Modes in Asynchronous Stellar Coalescence", ApJ, 877, 28 (arXiv:1812.07594)
- 161. Teyssandier, J.*, Lai, D., Vick, M.*, 2019, "Formation of Hot Jupiters through Secular Chaos and Dynamical Tides", MNRAS, 486, 2265-2280 (arXiv:1901.05006)
- 162. Pu, B.*, Lai, D. 2019, "Low-Eccentricity Formation of Ultra-Short Period Planets in Multi-Planet Systems", MNRAS, 488, 3568-3587 (arXiv:1901.08258)
- Zanazzi, J.J.*, Lai, D. 2019, "Tidal Disruption Event Disks around Supermassive Black Holes: Disk Warp and Inclination Evolution", MNRAS, 487, 4965-4984 (arXiv:1902.09546)
- 164. Liu, B.*, Lai, D., Wang, Y.-H. 2019, "Black Hole and Neutron Star Binary Mergers in Triple Systems: II. Merger Eccentricity and Spin-Orbit Misalignment", ApJ, 881, 41 (arXiv:1905.00427)
- 165. Liu, B.*, Lai, D., Wang, Y.-H. 2019, "Binary Mergers near a Supermassive Black Hole: Relativistic Effects in Triples", ApJ Letters, 883, L7 (arXiv:1906.07726)
- 166. Vick, M.*, Lai, D. 2019, "Tidal Effects in Eccentric Coalescing Neutron Star Binaries", Phys. Rev. D 100, 063001 (arXiv:1906.08780)
- 167. Wang, J-S, Lai, D. 2020, "Fast radio bursts and their associated nebulae or afterglows", ApJ, 892, 135 (arXiv:1907.12473)
- 168. Anderson, K.R.*, Lai, D., Pu, Bonan* 2020, "In-Situ Scattering of Warm Jupiters and Implications for Dynamical Histories", MNRAS, 491, 1369-1383 (arXiv:1908.04300)
- 169. Teyssandier, J.*, Lai, D. 2019, "A Simplified Model for the Secular Dynamics of Eccentric Discs and Applications to Planet-Disc Interactions", MNRAS, 490, 4353 (arXiv:1908.11384)
- 170. Munoz, D.*, Lai, D., Kratter, K., Miranda, R. 2020, "Circumbinary Accretion from Finite and Infinite Disks", ApJ, 889, 114 (arXiv:1910.04763)

- 171. Teyssandier, J.*, Lai, D. 2019, "Pulsed Disc Accretion Driven by Hot Jupiters", MNRAS, 495, 3930-3928 (arXiv:1911.08492)
- 172. Vick, M.*, Lai, D. 2020, "Tidal Evolution of Eccentric Binaries Driven by Convective Turbulent Viscosity", MNRAS, 496, 3767-3780 (arXiv:1912.04892)
- 173. Zanazzi, J.J.*, Lai, D. 2020, "Periodic Fast Radio Bursts with Neutron Star Free/Radiative Precession", ApJL, 892, L15 (arXiv:2002.05752)
- 174. Su, Yubo*, Lecoanet, D., Lai, D. 2020, "Physics of Tidal Dissipation in Early-Type Stars and White Dwarfs: Hydrodynamical Simulations of Internal Gravity Wave Breaking in Stellar Envelopes", MNRAS, 495, 1239-1251 (arXiv:2002.11118)
- 175. Liu, B.*, Lai, D. 2020, "Merging Compact Binaries Near a Rotating Supermassive Black Hole: Eccentricity Excitation due to Apsidal Precession Resonance", Phys. Rev. D 102, 023020 (arXiv:2004.10205)
- 176. Su, Yubo*, Lai, D. 2020, "Dynamics of Colombo's Top: Generating Exoplanet Obliquities from Planet-Disc Interactions", ApJ, 903, 7 (arXiv:2004.14380)
- 177. O'Connor, C.E.*, Lai, D. 2020, "High-eccentricity migration of planetesimals around polluted white dwarfs", MNRAS, 498, 4005-4020 (arXiv:2004.05977)
- 178. Li, Jiaru*, Lai, D. 2020, "Planetary Spin and Obliquity from Mergers", ApJL, 898, L20 (arXiv:2005.07718)
- 179. Li, Jiaru*, Lai, D., Anderson, K.R.*, Pu, B.* 2020, "Giant Planet Scatterings and Collisions: Hydrodynamics, Merger-Ejection Branching Ratio, and Properties of the Remnants", MNRAS, 501, 1621 (arXiv:2006.10067)
- 180. Vick, M.*, MacLeod, M., Lai, D., Loeb, A. 2021 "Tidal Dissipation Impact on the Eccentric Onset of Common Envelope Phases in Massive Binary Star Systems", MNRAS, 503, 5569 (arXiv:2008.05476)
- 181. Pu, Bonan*, Lai, Dong 2021, "Strong Scatterings of Cold Jupiters and their Influence on Inner Low-mass Planet Systems: Theory and Simulations", MNRAS, 508, 597-616 (arXiv:2008.05698)
- 182. Wang, J-S, Lai, Dong 2020, "Evolution of inspiralling neutron star binaries: effects of tidal interactions and orbital eccentricities", Phys. Rev. D 102, 083005 (arXiv:2009.08300)
- 183. Liu, Bin*, Lai, Dong 2021, "Hierarchical Black-Hole Mergers in Multiple Systems: Constrain the Formation of GW190412, GW190814 and GW190521-like events", MNRAS, 502, 2049 (arXiv:2009.10068)
- 184. O'Connor, C.E.*, Liu, Bin*, Lai, Dong 2021, "Enhanced Lidov-Kozai migration and the formation of the transiting giant planet WD1856+534b" MNRAS, 501, 507 (arXiv:2010.04163)
- 185. Rodet, Laetitia*, Lai, Dong 2021, "Inclination Dynamics of Resonant Planets under the Influence of an Inclined External Companion", MNRAS, 502, 3746 (arXiv:2010.08046)
- 186. Su, Yubo*, Lai, Dong, Liu, Bin* 2020, "Spin-Orbit Misalignments in Tertiary-Induced Black-Hole Binary Mergers: Theoretical Analysis", Phys. Rev. D 103, 063040 (arXiv:2010.11951)
- 187. Anderson, K.R.*, Lai, Dong 2021, "Excitation of Spin-Orbit Misalignments in Stellar Binaries with Circumbinary Disks: Application to DI Herculis", ApJ, 906, 17 (arXiv:2010.15122)
- 188. Romanova, M.M., Koldoba, A.V., Ustyugova, G.V., Blinova, A.A., Lai, D., Lovelace, R.V.E. 2021 "3D MHD Simulations of Accretion onto Stars with Tilted Magnetic and Rotational Axes", MN-RAS, 506, 372 (arXiv:2012.10826)
- 189. Rodet, Laetitia*, Su, Yubo*, Lai, Dong 2021, "On the Correlation between Hot Jupiters and Stellar Clustering: High-Eccentricity Migration Induced by Stellar Flybys", ApJ, 913, 104 (arXiv:2102.07898)
- 190. Su, Yubo*, Liu, Bin*, Lai, Dong 2021, "The Mass Ratio Distribution of Tertiary Induced Binary Black Hole Mergers", MNRAS, 505, 3681-3797 (arXiv:2103.01963)

- 191. Lai, Dong 2021, "Jupiter's Dynamical Love Number", Planetary Science Journal, 2, 122 (arXiv:2103.06186)
- 192. Hong, Yu-Cian*, Lai, Dong, Lunine, J.I, & Nicholson, P.D. 2021, "Spin Dynamics of Extrasolar Giant Planets in Planet-Planet Scattering", ApJ, 920, 151 (arXiv:2103.15902)
- 193. Liu, Bin*, & Lai, Dong 2022, "Probing the Spins of Supermassive Black Holes with Gravitational Waves from Surrounding Compact Binaries", ApJ, 924, 127 (arXiv:2105.02230)
- 194. Dewberry, J.W., Mankovich, C.R., Fuller, J., Lai, Dong, Xu, Wenrui 2021 "Constraining Saturn's interior with ring seismology: effects of differential rotation and stable stratification", Planetary Sceince Journal, 2, 198 (arXiv:2106.07659)
- 195. Rodet, L.*, & Lai, Dong 2022, "The Impact of Stellar Clustering on the Observed Multiplicity of Super-Earth systems: Outside-in Cascade of Orbital Misalignments Initiated by Stellar Flybys" MNRAS, 509, 1010-1023 (arXiv:2107.06412)
- 196. Su, Yubo*, & Lai, Dong 2022, "Dynamics of Colombo's Top: Tidal Dissipation and Resonance Capture, with Applications to Oblique Super-Earths, Ultra-Short-Period Planets and Inspiraling Hot Jupiters" MNRAS, 509, 3301-3320 (arXiv:2108.01082)
- 197. Su, Yubo*, & Lai, Dong 2022, "Dynamical Tides in Eccentric Binaries Containing Massive Main-Sequence Stars: Analytical Expressions", MNRAS, 510, 4943-4951 (arXiv:2110.12030)
- 198. Dewberry, Janosz W., & Lai, Dong 2022, "Dynamical tidal Love numbers of rapidly rotating planets and stars", ApJ, 925, 1214 (arXiv:2110.12129)
- 199. O'Connor, C.E.*, Teyssandier, J., & Lai, Dong 2022, "Secular chaos in white-dwarf planetary systems: origins of metal pollution and short-period planetary companions", MNRAS, 513, 4178-4195 (arXiv:2111.08716)
- 200. Su, Yubo*, & Lai, Dong 2022, "Non-Trivial Oblique Spin Equilibria of Super-Earths in Multiplanetary Systems", MNRAS, 513, 3302-3316 (arXiv:2112.02482)
- 201. Liu, Bin*, & Lai, Dong 2022, "Evolution of Stellar Orbits Around Merging Massive Black-Hole Binary", MNRAS, 513, 4657-4668 (arXiv:2201.08399)
- 202. Li, Rixin*, & Lai, Dong 2022, "Hydrodynamical Evolution of Black-Hole Binaries Embedded in AGN Discs", MNRAS, 517, 1602-1624 (arXiv:2202.07633)
- 203. Li, Jiaru*, Lai, Dong, & Rodet, L.* 2022, "Long-term Evolution of Tightly-Packed Stellar Black Holes in AGN Disks: Formation of Merging Black-Hole Binaries via Close Encounters", ApJ, 934, 154 (arXiv:2203.05584)
- 204. Li, Jiaru*, Rodet, L.*, & Lai, Dong 2022, "Dynamical Instability in Multi-Orbiter Systems with Gas Friction", MNRAS, submitted (arXiv:2206.01755)
- 205. Laune, J.T.*, Rodet, L.*, & Lai, Dong 2022, "Apsidal Alignment and Anti-Alignment of Planets in Mean-Motion Resonance: Disk-Driven Migration and Eccentricity Driving", MNRAS, 517, 4472-4488 (arXiv:2206.04810)
- 206. Li, Rixin*, & Lai, Dong 2023, "Hydrodynamical Evolution of Black-Hole Binaries Embedded in AGN Discs: II. Dependence on Equation of State, Binary Mass, and Separation Scales", MNRAS, 522, 1881-1894 (arXiv:2207.01125)
- 207. Rodet, Laetitia*, & Lai, Dong 2022, "Eccentric debris belts reveal the dynamical history of the companion exoplanet", MNRAS, 516, 5544-5554 (arXiv:2208.05041)
- 208. Lai, Dong 2023, "IXPE Detection of Polarized X-rays from Magnetars and Photon Mode Conversion at QED Vacuum Resonance", PNAS, 120, 17, e2216534120 (arXiv:2209.13640)

- 209. Lai, Dong, & Munoz, Diego J. 2023, "Circumbinary Accretion: From Binary Stars to Massive Binary Black Holes", ARAA, 61, 517-560 (arXiv:2211.00028)
- 210. Li, Jiaru*, & Lai, Dong, 2022 "Resonant Excitation of Planetary Eccentricity due to a Dispersing Eccentric Protoplanetary Disk: A New Mechanism of Generating Large Planetary Eccentricities" ApJ, submited (arXiv:2211.07305)
- 211. Vick, Michelle*, Su, Yubo*, & Lai, Dong, 2023 "High-Eccentricity Migration with Disk-Induced Spin-Orbit Misalignment: a Preference for Perpendicular Hot Jupiters" ApJL, 943, L13 (arXiv:2211.09122)
- 212. Li, Jiaru*, Dempsey, A.M., Li, Hui, Lai, Dong, & Li. S. 2023 "Hydrodynamical Simulations of Black-Hole Binary Formation in AGN Disks", ApJL, 944, 42L (arXiv:2211.10357)
- 213. Wang, Hai-Yang, Bai, Xue-Ning, Lai, Dong, 2022 "On the Role of Gas Cooling in the Dynamics of Circumbinary Disks", ApJ, 943, 175 (arXiv:2212.04199)
- 214. Wang, Hai-Yang, Bai, Xue-Ning, Lai, Dong, Lin, D.N.C. 2022 "Hydrodynamical Simulations of Circumbinary Accretion: Balance between Heating and Cooling", MNRAS, submited (arXiv:2212.07416)
- 215. Li, Rixin*, Lai, Dong 2023 "Hydrodynamical Evolution of Black-Hole Binaries Embedded in AGN Discs: III. The Effects of Viscosity", MNRAS, submitted (arXiv:2303.12207)
- 216. Xu, Siyao, Hwang, Hsiang-Chih, Hamilton, Chris, Lai, Dong 2023 "Wide binary stars formed in the turbulent interstellar medium", ApJ, 949, L28 (arXiv:2303.16224)
- 217. Romanova MM, Koldoba AV, Ustyugova GV, Lai D, Lovelace RVE "Eccentricity Growth of Massive Planets inside Cavities of Protoplanetary Discs", MNRAS, 523, 2832-2849 (arXiv:2303.17784)
- 218. O'Connor*, CE, Bildsten, L, Cantiello, M, Lai, D 2023 "Giant planet engulfment by evolved giant stars: light curves, asteroseismology, and survivability", ApJ, 950, 128 (arXiv:2304.09882)
- 219. O'Connor*, CE, Lai, D, Seligman, DZ 2023, "On the pollution of white dwarfs by exo-Oort cloud comets", MNRAS, in press (arXiv:2306.10102)
- 220. Rodet*, Laetitia, Lai, D 2023, "Planet-Driven Scatterings of Planetesimals Into a Star: Probability, Timescale and Applications", MNRAS, in press (arXiv:2308.10326)

INVITED REVIEW PAPERS

- 1. Lai, D. 2000, "Physics of Neutron Star Kicks", in *Stellar Astrophysics*, ed. K. S. Cheng et al. (Kluwer Publication) (astro-ph/9912522).
- D. Lai 2001, "Neutron Star Kicks and Asymmetric Supernovae", in *Physics of Neutron Star Inte*riors (Lecture Notes in Physics), ed. D. Blaschke, N.K. Glendenning, and A. Sedrakian (Springer 2001) (astro-ph/0012049).
- 3. D. Lai 2001, "Secular Bar-Mode Evolution and Gravitational Waves From Neutron Stars", in Astrophysical Sources of Gravitational Radiation for Ground-Based Detectors, ed. J. Centrella (AIP Press) (astro-ph/0101042).
- 4. D. Lai 2003, "Neutron Star Kicks and Supernova Asymmetry", in 3D Signatures in Stellar Explosions, ed. P. Kumar, P. Hoeflich and J.C. Wheeler (Cambridge University Press) (astro-ph/0312542)
- 5. Dong Lai 2005, "Thermal Radiation From Isolated Neutron Stars", in "Astrophysical Sources of High Energy Particles and Radiation" (Torun, Poland), eds. T. Bulik, G. Madejski and B. Rudak (ASP publication)

- Dong Lai 2005, "Matter and Radiation in Strong Magnetic Fields of Neutron Stars", in "Astrophysics as Interdisciplinary Science" (Proceedings of the Third 21 COE Symposium, Waseda University, 9/2005), Journal of Physics: Conf. Series.
- 7. Lai, D., Ho, W*, van Adelsberg, M.*, Wang, C.* and Heyl, J.S. 2009, "Polarized X-rays from Magnetized Neutron Stars", in "X-ray Polarimetry: A New Window in Astrophysics", edited by R. Bellazzini, E. Costa, G. Matt and G. Tagliaferri (Cambridge University Press) (arXiv:0906.4717)
- 8. Lai, D. 2013, "Merging neutron star binaries: equation of state and electrodynamics", Proceedings of IAUS 291 "Neutron Stars and Pulsars: Challenges and Opportunities after 80 years", J. van Leeuwen (ed.) (arXiv:1212.5996)
- 9. Lai, D., Fu*, W., Tsang*, D., Horak, J., Yu, C. 2013, "High-Frequency QPOs and Overstable Oscillations of Black-Hole Accretion Disks", Proceedings of IAUS 290 "Feeding Compact Objects: Accretion on All Scales", C. M. Zhang, T. Belloni, M. Mendez & S. N. Zhang (eds.) (arXiv:1212.5323)
- Lai, D. 2014, "Theory of Disk Accretion onto Magnetic Stars", EPJ Web of Conferences, Vol.64, 01001; Proceedings of "Physics of Magnetospheric Boundary", Geneva, Switzerland, 25-28, June 2013, eds. E. Bozzo et al. (arXiv:1402.1903)
- 11. Lai, D. 2015, "Physics in Very Strong Magnetic Fields" in "The Strongest Magnetic Fields in the Universe" (Space Sciences Series of ISSI, Springer), Space Science Reviews (arXiv:1411.7995)
- 12. Lai, D. 2021, "T.D. Lee and Astrophysics of Compact Objects" (in Chinese), in Modern Physics Magazine (Xiandai Wuli Zhishi), T.D. Lee 95th year Special Edition

BOOKS

1. Y.-F. Yuan, X.-D. Li and D. Lai 2008 (eds), "Astrophysics of Compact Objects" (Proceedings of the International Conference held in Huangshan, July 2007) (published by American Institute of Physics: New York)

Conference Proceedings, Many-authored Papers, White Papers, etc.

- 1. D. Lai, E. E. Salpeter and S. L. Shapiro 1992, "Hydrogen Molecules and Chains in a Magnetic Neutron Star Atmosphere", in *Physics of Isolated Pulsars*, eds. K. Van Riper, R. Epstein and C. Ho, pp 160-167 (Cambridge University Press).
- 2. D. Lai, F. A. Rasio and S. L. Shapiro 1992, "Collisions and Close Encounters Between Main-Sequence Stars in Galactic Nuclei", in *New York State Astronomy*, ed. A.G.D. Philip (Schenectady: L. Davis Press).
- 3. D. Lai and S. L. Shapiro 1992, "Topics on the Equation of State in Metals and Cold Stars", in *Physics of Strongly Coupled Plasmas*, eds. H.M. Van Horn and S. Ichimaru, pp 171-174 (University of Rochester Press).
- D. Lai, F. A. Rasio and S. L. Shapiro 1993, "Hydrodynamical Instability and Orbital Evolution of Close Binaries", in *Evolution of X-Ray Binaries*, eds. S. S. Holt and C. S. Day, pp 303-306 (AIP Press).
- 5. D. Lai 1997, "Dynamics of Binary Pulsars and Neutron Star Formation", in *Proceedings of the* 18th Texas Symposium on Relativistic Astrophysics (Chicago, IL, 12, 1996) Editors: A. Olinto, J. Frieman, and D. Schramm (World Scientific Press).

- D. Lai, R.V.E. Lovelace and I. Wasserman 1999, "Kilohertz Quasi-Periodic Oscillations, Magnetic Fields and Mass of Neutron Stars in Low-Mass X-ray Binaries", (astro-ph/9904111).
- 7. D. Lai 2000, "Magnetically Driven Warping, Precession and Resonances in Accretion Disks", in *Stellar Astrophysics*, ed. K. S. Cheng et al. (Kluwer Publication).
- 8. D. Lai and W.C.G.Ho* 2002, "Comment on 'The Effect of Vacuum Polarization ... in Strongly Magnetized Plasmas' by Ozel", unpublished note (astro-ph/0204187)
- 9. D. Lai 2002, "Magnetically Driven Warping and Precession of Accretion Disks: Implications for 'Exotic" Stellar Variabilities", in *Exotic Stars as Challenges to Evolution* (Proceedings of IAU Colloquium 187), ed. C. Tout and W. van Hamme (ASP Press: San Francisco) (astro-ph/0211316)
- 10. W.C.G.Ho* and D. Lai 2002, "Atmospheres and Spectra of Magnetic Neutron Stars", in *Proceedings of the Tuebingen Workshop on Stellar Atmosphere Modeling* (Tuebingen, Germany), ed. I. Hubeny, D. Mihalas and K. Werner (published in ASP Press).
- D. Lai 2002, "Core-Collapse Supernovae and Neutron Star Kicks", in Radio Pulsars (Proceedings of 2002 pulsar meeting in Crete), ed. M. Bailes, D. Nice & S. Thorsett (to be published in ASP Press) (astro-ph/0212140)
- D. Lai and W.C.G. Ho* 2003, "Matter and Radiation in Superstrong Magnetic Fields and Thermal Emission from Neutron Stars", in *High Energy Processes and Phenomena in Astrophysics* (Proceedings of IAU Symp. 214, Suzhou, China), ed. X. Li, V. Trimble, et al. (ASP Press) (astro-ph/0302156)
- 13. A. Reisenegger, J. Prieto, R. Benguria, D. Lai and P. Araya 2005, "Magnetic fields in neutron stars: A theoretical perspective", in "Magnetic Fields in the Universe: from Laboratory and Stars to Primordial Structures", eds. E.M. de Gouveia, A. Lazarian, & G. Lugones (AIP Conference Proceedings)
- 14. Dong Lai, Chen Wang[⋆] and JinLin Han 2006, "Neutron Star Kicks: Mechanisms and Observational Constraints", in Proceedings of the International Pulsar Meeting (Lake Hanas, China) Chinese Journal of Astronomy and Astrophysics.
- 15. Zach Medin* and Dong Lai 2008, "Condensed Surfaces of Magnetic Neutron Stars and Particle Acceleration Above Pulsar Polar Caps", in 40 Years of Pulsars: Millisecond Pulsars, Magnetars and More, 983, 249-253 (AIP Conference Proceedings)
- Matt van Adelsberg[⋆] and Dong Lai 2008, "Atmosphere Models of Magnetized Neutron Stars: QED Effects, Radiation Spectra and Polarization Signals", in Astrophysics of Compact Objects (AIP Conference Proceedings), 968, 137-142
- 17. Dong Lai, et al. 2009, "Extreme Astrophysics with Neutron Stars", whitepaper submitted to Astro2010 Decadal Survey (arXiv:0902.3821)
- 18. Z. Arzoumanian, et al. 2009, "X-ray Timing of Neutron Stars, Astrophysical Probes of Extreme Physics", whitepaper submitted to Astro2010 Decadal Survey (arXiv:0902.3264)
- 19. Lai, D., Foucart*, F., & Lin, D.N.C. 2011, "Evolution of spin direction of accreting magnetic protostars and spin-orbit misalignment in exoplanetary systems", in "Astrophysics of Planetary Systems" (IAU 276) (Cambridge Univ. Press)
- Feroci, M., et al. 2012, "LOFT: the Large Observatory for X-ray Timing", Proc. SPIE, 8443, 8443-85 (arXiv:1209.1497)
- 21. Wang*, C., Lai, D., Han, J. 2013, "Wave propagation in pulsar magnetospheres", Proceedings of IAUS 291 "Neutron Stars and Pulsars: Challenges and Opportunities after 80 years", J. van Leeuwen (ed.)

- 22. Schnittman, J., et al. 2013, "X-ray Polarization from Black Holes: GEMS Scientific White Paper" (arXiv:1301.1957)
- 23. Ghosh, P., et al. 2013, "White Paper on GEMS Study of Polarized X-rays from Neutron Stars" (arXiv:1301.5514)
- 24. Krawczynski, H., et al. 2013, "White Paper for Blazar Observations with a GEMS-like X-ray Polarimetry Mission" (arXiv:1303.7158)
- 25. Feroci, M. et al 2014, "The Large Observatory for X-ray Timing", Proc. SPIE, 9144, 91442T (arXiv:1408.6526)
- 26. Zhang, S.N. et al. 2016, "eXTP enhanced X-ray Timing and Polarimetry Mission", SPIE proceedings, 9905, 99051Q (arXiv:1607.08823)
- 27. Feroci, M., et al. 2016, "The LOFT Mission Concept: a Status Update", SPIE proceedings, 9905, 99051R
- 28. Ray, P.S., et al. 2019, "STROBE-X: X-ray Timing and Spectroscopy on Dynamical Timescales from Microseconds to Years", Astro 2020 Decadal Survey white paper (arXiv:1903.03035)