

Dr. Kenta Kiuchi

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Born : 6 February 1980, Japan

Languages: Japanese(native), English(B2), German(A2)

ACADEMIC CAREER

- Since 2019 **Group Leader**, Max-Planck-Institut für Gravitationsphysik (Albert-Einstein-Institut)
- Since 2019 **Affiliate Associate Professor**, Yukawa Institute for Theoretical Physics, Kyoto University
- 2016 – 2018 **Associate Professor**, Yukawa Institute for Theoretical Physics, Kyoto University
- 2016 – 2016 **Research Associate Professor**, Yukawa Institute for Theoretical Physics, Kyoto University
- 2011 – 2016 **Research Assistant Professor**, Yukawa Institute for Theoretical Physics, Kyoto University
- 2010 – 2011 **Postdoctoral Fellow**, Yukawa Institute for Theoretical Physics, Kyoto University
- 2008 – 2010 **Assistant Professor**, Department of Physics, Waseda University
- 2007 – 2008 **Postdoctoral researcher**, Department of Physics, Waseda University
- 2004 – 2007 **PhD research student**, Waseda University, Japan, Thesis “Chaotic dynamical system and gravitational waves” (Advisor: K. Maeda)
- 2003 – 2004 **Graduate studies**, Waseda University, Japan “Gravitational waves from chaotic dynamical system” (Master)
- 1999 – 2003 **Undergraduate studies**, Waseda University, Japan, Physics

GRANTS AND MEMBERSHIP

Grants

- 2023 – 2027 Principal Investigator of Grant-in-Aid for Scientific Research (B) (No. 23H), 17,860,000 JPY (Direct Cost: 13,900,000 JPY, Indirect Cost: 3,960,000 JPY)
- 2018 – 2021 Principal Investigator of Grant-in-Aid for Scientific Research (B) (No. 18H01213), 17,160,000 JPY (Direct Cost: 13,200,000 JPY, Indirect Cost: 3,960,000 JPY)
- 2017 – 2018 Co-Principal Investigator of Grant-in-Aid for Scientific Research on Innovative Areas (No. 17H06361), PI Prof. Tagoshi Hideyuki, 168,090,000 JPY (Direct Cost: 129,300,000 JPY, Indirect Cost: 38,790,000 JPY)
- 2016 – 2018 Co-Principal Investigator of Grant-in-Aid Scientific Research (A) (No.16H02183), PI Prof. Shibata, Masaru, 45,760,000 JPY (Direct Cost: 35,200,000 JPY, Indirect Cost: 10,560,000 JPY)
- 2015 – 2017 Principal Investigator of Grant-in-Aid for Scientific Research on Innovative Areas (No. 15H00783) , 4,550,000 JPY (Direct Cost: 3,500,000 JPY, Indirect Cost: 1,050,000 JPY)
- 2015 – 2017 Principal Investigator of Grant-in-Aid for Scientific Research on Innovative Areas (No. 15H00836) , 2,600,000 JPY (Direct Cost: 2,000,000 JPY, Indirect Cost: 600,000 JPY)
- 2015 – 2018 Principal Investigator of Grant-in-Aid for Scientific Research (C) (No. 15K05077), 4,810,000 JPY (Direct Cost: 3,700,000 JPY, Indirect Cost: 1,100,000 JPY)
- 2013 – 2015 Principal Investigator of Grant-in-Aid for Scientific Research on Innovative Areas (No. 25103510) , 4,680,000 JPY (Direct Cost: 3,600,000 JPY, Indirect Cost: 1,080,000 JPY)
- 2013 – 2015 Principal Investigator of Grant-in-Aid for Scientific Research on Innovative Areas (No. 25105508), 2,210,000 JPY (Direct Cost: 1,700,000 JPY, Indirect Cost: 510,000 JPY)
- 2012 – 2015 Principal Investigator of Grant-in-Aid for Young Scientist (B) (No. 24740163) 4,420,000 JPY (Direct Cost: 3,400,000 JPY, Indirect Cost: 1,020,000 JPY)
- 2012 – 2016 Co-Principal Investigator of Grant-in-Aid Scientific Research (A) (No. 24244028), PI Prof. Shibata, Masaru, 44,980,000 JPY (Direct Cost: 34,600,000 JPY, Indirect Cost: 10,380,000 JPY)
- 2010 – 2012 Principal Investigator of Grant-in-Aid for Young Scientist (B) (No.

- 22740178) , 3,900,000 JPY (Direct: 3,000,000 JPY, Indirect: 900,000 JPY)
- 2009 – 2012 Co-Principal Investigator of Grant-in-Aid Scientific Research (B) (No. 21340051), PI Prof. Shibata, Masaru 15,080,000 JPY (Direct Cost: 11,600,000 JPY, Indirect Cost: 3,480,000 JPY)
- 2005 – 2008 Principal Investigator of Grant-in-Aid for JSPS Fellow (No. 05J00473), 2,700,000JPY (Direct: 2,700,000 JPY)

Scholarships

- 2005 – 2007 JSPS Research Fellow for Young Scientists (DC1)

COMMISSIONS OF TRUST

- | | |
|------------------------------------|---|
| Reviewers for the proposal | The Netherlands Organization for Scientific Research (NOW) |
| Reviewers for the PhD Dissertation | The Department of Astronomy and Astrophysics at the Universitat de València, Spain, 2016 |
| Refereeing | Acted as scientific referee for: Physical Review D, Physical Review Letters, Journal of Cosmology and Astroparticle Physics, Progress of Theory and Experiments Physics, Astrophysical Journal Letter |

TEACHING EXPERIENCE

- 2022 – 2022 Lectures of the IMPRS on Gravitational-Wave Astronomy in Potsdam “Numerical Hydrodynamics” at Max-Planck Institute for Gravitational Physics, Germany
- 2018 – 2018 Lecture course “Science of complex system” at Ryukoku University, Japan
- 2009 – 2010 Lecture course “Experiment of the basic physics” at Waseda University, Japan
- 2009 – 2010 Lecture course “Exercise in Physics” at Waseda University, Japan
- 2008 – 2009 Lecture course “Experiment of the basic physics” at Waseda University, Japan
- 2008 – 2009 Lecture course “Exercise in Physics” at Waseda University, Japan

ORGANISATION OF SCIENTIFIC MEETINGS (selected)

- 2023 CoCoNuT2023, AEI, SOC (Chair), Potsdam, Germany
- 2020 JESS2020, AEI, Organizers, March 2-14, Potsdam, Germany
- (postponed)
- 2019 Long-term workshop “Multi-Messenger Astrophysics in the Gravitational Wave Era”, YITP, LOC, Kyoto, Japan
- 2019 JESS2019, AEI, Organizers, March 11-22, Potsdam, Germany
- 2018 The second annual symposium of the innovative area "Gravitational Wave Physics and Astronomy: Genesis", YITP, SOC(Chair), Nov. Kyoto, Japan
- 2018 International workshop “Jet and Shock Breakouts in Cosmic Transients”, YITP, LOC, May, Kyoto, Japan
- 2017 Microphysics in Computational Relativistic Astrophysics 2017, Michigan State University, SOC, June, Michigan, USA
- 2015 International School of Gravitational Wave Physics, YITP, LOC, March, Kyoto, Japan
- 2013 Long-term workshop “Supernovae and Gamma-Ray Bursts 2013”, YITP, LOC, Kyoto, Japan
- 2013 Long-term workshop “Gravitational Waves and numerical relativity”, YITP, LOC, Kyoto, Japan
- 2013 Gravitational waves and numerical relativity, LOC at Kyoto University
- 2012 EANAM2012, YITP, LOC, Kyoto, Japan

INVITED CONFERENCE TALKS AND LECTURES

- 2023 “A large-scale dynamo and its application to electromagnetic signals in binary neutron star mergers”, **Invited speaker**, Ready, set go! Preparing for the O4 LIGO-Virgo-KAGRA observing run, The Humboldt University, Berlin, Germany
- 2022 “Self-consistent picture of the mass ejection from one-second lasting binary neutron star merger in numerical-relativity neutrino-radiation magnetohydrodynamic simulation”, **Invited speaker**, Unsolved problems in Astrophysics and Cosmology 2022, The Hebrew Univ., Jerusalem, Israel
- 2022 “Constraining the Nuclear Equation of State from Compact Binary Mergers”, **Invited speaker**, GRC 2022, Holderness, NH, USA
- 2022 “Waveform challenges and numerical relativity”, **Invited panelist**, The 8th PAX meeting, MIT, Boston, USA
- 2022 “Toward self-consistent modeling of compact binary mergers in

- numerical relativity”, **Invited speaker**, FNR2022, Jena Univ., Jena, Germany
- 2022 “Numerical modeling of gravitational wave sources in gravitational wave astronomy era”, **Invited speaker**, JPS Symposium (on-line)
- 2021 “Numerical modeling of gravitational wave sources in multimessenger astronomy era”, **Invited speaker**, JGRG, Waseda Univ. (on-line), Tokyo, Japan
- 2021 “Numerical modeling of gravitational wave sources in multimessenger astronomy era”, **Invited colloquium speaker**, IAS, Princeton, USA
- 2021 “Recent progress of numerical relativity simulations of compact objects and its application to gravitational wave astrophysics”, **Invited lecturer**, RESCEU SUMMER SCHOOL (on-line)
- 2020 “Theoretical modeling of binary neutron star mergers: Recent progress and future prospect”, **Invited colloquium speaker**, GRAPPA (on-line)
- 2020 “Systematic error for the neutron star tidal deformability estimation in GW170817/AT2017gfo”, **Invited speaker**, Gravitational wave searches and parameter estimation in the era of detections, Schloss Ringberg, Munich, Germany
- 2019 “Theoretical modeling of binary neutron star mergers; Recent progress and future prospect”, **Invited colloquium speaker**, AEI-Hannover, Hannover, Germany
- 2019 “Current status of a numerical modeling of binary neutron star mergers and short gamma-ray bursts”, **Invited speaker**, GRB 2019, Yokohama, Japan
- 2019 “Recent progress of a numerical modeling of binary neutron star mergers in numerical relativity”, **Invited speaker**, CoCoNuT 2019, Astana, Kazakhstan
- 2019 “A theoretical modeling of EM and GW emission for binary neutron star mergers”, **Invited panelist** chaired by Prof. Rezzolla, IGC@25 Multimessenger Universe, PSU, Penn State, USA
- 2019 “Revisiting the lower bound on tidal deformability derived by AT 2017gfo”, **Invited speaker and panelist**, FOE2019, NC USA, Raleigh, USA
- 2019 “Frontiers in Numerical Relativity”, **Invited lecturer**, 2019 YITP Asia-Pacific Winter School and Workshop on Gravitation and Cosmology, Kyoto, Japan
- 2018 **Invited speaker**, Workshop on r-Process and Unstable Nuclei in Multimessenger Astronomy, Riken, Wako, Japan

- 2018 “Binary Neutron Star Merger”, **Invited speaker**, Workshop on Jet and Shock breakout in Cosmic transient, YITP, Kyoto, Japan
- 2018 “Introduction to a numerical modeling of binary neutron star mergers”, **Invited lecturer**, Workshop/School on Recent Developments in Gravitational Waves and Astrophysics, Academia Sinica, Taipei, Taiwan
- 2018 ” Gravitational waves and electromagnetic signals from a binary neutron star merger GW170817”, **Invited speaker**, Innovative area workshop “Why does the Universe accelerate? - Exhaustive study and challenge for the future”, Tohoku Univ., Sendai, Japan
- 2017 “Numerical modeling of a central engine of short gamma-ray bursts”, **Invited speaker**, Innovation of research of gamma-ray burst, ICRR, Kashiwa, Japan
- 2017 “Numerical modeling of binary neutron star mergers and gravitational waves”, **Invited speaker**, The 25th Anniversary Memorial Symposium of CCS, Univ. Tsukuba “Progress and Future of Computational Sciences”, Tsukuba International Congress Center, Tsukuba, Japan
- 2017 “Numerical modeling of binary neutron star mergers”, **Invited speaker**, Hot topics in General Relativity and Gravitation 3, ICISE, Qui-Nhon, Vietnam
- 2017 “Introduction to Numerical Relativity of compact binary merger simulation”, **Invited lecturer**, Asian-Pacific School and Workshop on Gravitational and Cosmology, CHUK , Hong Kong, China
- 2017 Aspen workshop "Astrophysics of Gravitational Radiation Sources and Multimessenger Astronomy in the Era of LIGO Detections", Aspen, USA
- 2017 “High precision gravitational wave from binary neutron star mergers”, **Invited speaker**, Nuclear Astrophysics in the Gravitational Wave Astronomy Era, ECT*, Torento, Italy
- 2017 **Invited speaker**, Ko-uren kenkyuukai, Nagoya Univ. Japan
- 2017 “Simulations of binary neutron star mergers”, **Invited speaker**, April Meeting 2017 of American Physical Society, Washington DC, USA
- 2016 2016 Rironkon symposium, **Invited speaker**, Tohoku Univ., Sendai, Japan
- 2016 JPS meeting symposium of Black holes probed by Gravitational Waves and Verification of Gravity Theories and General Relativity, **Invited speaker**, Miyazaki Univ., Miyazaki, Japan
- 2016 ASJ special session of First detection of the gravitational waves and dawn of the gravitational wave astronomy, **Invited speaker**, Ehime Univ.,

- Matsuyama, Japan
- 2016 “Introduction to Numerical Relativity”, **Invited lecturer**, The Seventh Summer School on Frontiers of Theoretical Physics — Gravitation and Cosmology (NSFC) / 2016 AP Summer School and Workshop on Gravitation and Cosmology (APCTP-ITP-NCTS-YITP Joint Program), Hunan University, Changsha, China
- 2015 “Recent progress of the compact binary merger simulations in Kyoto numerical relativity group”, **Invited speaker**, Hot topics in General Relativity and Gravitation, ICISE, Qui-Nhon, Vietnam
- 2015 “Recent progress of the binary neutron star merger simulations in numerical relativity”, **Invited speaker**, International Conference on Gravitation and Cosmology, and the fourth Galileo-Xu Guangqi Meeting, KITPC, Beijing, China
- 2015 “Black hole-neutron star binary mergers”, **Invited speaker**, YITP workshop on Gravitational waves and electromagnetic signals from compact binary mergers and related fields, YITP, Kyoto, Japan
- 2014 “Magnetic-field amplification on binary neutron star mergers”, **Invited speaker**, Workshop on the high energy astrophysics 2014, Kyusyu Univ., Hakata, Japan
- 2014 “Magnetized binary neutron star merger simulations on K”, **Invited speaker**, Magnetic Reconnection 2014, Tokyo Univ., Tokyo, Japan
- 2014 “Numerical relativity simulation of binary magnetized neutron star mergers on K”, **Invited speaker**, Plasma2014, Plasma Conference 2014, Niigata, Japan
- 2014 “Black hole-magnetized neutron star mergers”, **Invited speaker**, Workshop on the theoretical astrophysics 2014, Kyukamura Tateyama, Tateyama, Japan
- 2014 “Magnetic-field amplification on binary neutron star mergers”, **Invited speaker**, Workshop on the activities of compact stars and its magnetic properties, NAOJ, Mitaka, Japan
- 2014 “Numerical relativity simulations on binary magnetized neutron stars on K”, **Invited speaker**, JpGU2014 Annual Meeting, Yokohama Pacifico, Yokohama, Japan
- 2013 **Invited Lecturer**, Summer School “2013 International School on Numerical Relativity and Gravitational Waves”, APCTP, Pohang, Korea
- 2012 “Numerical relativity”, **Invited speaker**, The 25th Rironkon Symposium of A new era in computational astrophysics, Tsukuba international

- conference, Tsukuba, Japan
- 2011 “Gravitational waves and neutrino emission from the merger of binary neutron stars” , **Invited speaker**, Amaldi 9 & NRDA, Cardiff University, Wales

Public outreach activities

- 2021 Public lecture at GO:IN at Science Park Potsdam
- 2021 Interview for Potsdam Science Park Blog (<https://potsdam-sciencepark.de/en/blog/>)
- 2018 Public lecture to Nara Gakuen Junior High School at YITP
- 2018 Public lecture to Japan Association of Chemical Sensors Meeting at YITP
- 2018 Public lecture at the annual meeting of Tomono-kai at Osaka Science Museum
- 2017 Public lecture at workshop to spread astronomy at Kobe University
- 2017 Public lecture at Takatsu Junior High School in Osaka city Tennojiku
- 2016 Public lecture at Yu-higaoka Junior High school in Osaka city Tennojiku
- 2015 Public lecture at Tennoji Junior High school in Osaka city Tennojiku
- 2015 Cooperation with a NHK BS TV program Cosmic Front “Einstein, the last homework, Find gravitational waves” Sep. 25th 2014 on Air
- 2015 Supervision of the planetarium, Katsushika City Museum, Nov.6th- Dec. 31th 2015 on Air,
<http://www.museum.city.katsushika.lg.jp/planetarium/index.php>
- 2014 Interviews (JICFUS) <http://www.jicfus.jp/jp/2014-1m/>
- 2014 Press release (Kyoto Univ.) http://www.kyoto-u.ac.jp/ja/research/research_results/2014/140901_1.html

List of Publications

Kenta Kiuchi

My publications are listed in NASA ADS database with 109 entries (Jun. 2023);

- 78 original research papers that have appeared in peer-reviewed journals
- 3 preprints submitted to somewhere
- 28 contributions to conference proceedings (non-refereed).

Total citation and h-index are 7024 (8708) and 45 (48), respectively, in NASA ADS (Google scholar).

Referred journals

74. "Self-consistent picture of the mass ejection from a one second-long binary neutron star merger leaving a short-lived remnant in general-relativistic neutrino-radiation magnetohydrodynamic simulation," Kenta Kiuchi, Sho Fujibayashi, Kota Hayashi, Koutarou Kyutoku, Yuichiro Sekiguchi and Masaru Shibata, PRL accepted
73. "General-relativistic neutrino-radiation magnetohydrodynamics simulation of seconds-long black hole-neutron star mergers: Dependence on initial magnetic field strength, configuration, and neutron-star equation of state," Kota Hayashi, Kenta Kiuchi, Koutarou Kyutoku, Yuichiro Sekiguchi, and Masaru Shibata, PRD, 107 (2023) 123001
72. "The collimation of relativistic jets in post-neutron star binary merger simulations," Matteo Pais, Tsvi Piran, Yuri Lyubarsky, Kenta Kiuchi, and Masaru Shibata, ApJ, 946 (2023) L9
71. "Numerical-relativity simulation for tidal disruption of white dwarfs by a supermassive black hole," Alan Tsz-Lok Lam, Masaru Shibata and Kenta Kiuchi, PRD, 107 (2023) 043033
70. "Comprehensive study on the mass ejection and nucleosynthesis in the binary neutron star mergers leaving short-lived massive neutron stars", Sho Fujibayashi, Kenta Kiuchi, Shinya Wanajo, Koutarou Kyutoku, Yuichiro Sekiguchi and Masaru Shibata, ApJ, 942 (2023) 39
69. "Implementation of advanced Riemann solvers in a neutrino-radiation magnetohydrodynamics code in numerical relativity and its application to a binary neutron star merger", Kenta Kiuchi, Loren E. Held, Yuichiro Sekiguchi and Masaru Shibata, PRD, 106 (2022) 124041
68. "Investigating GW190425 with numerical-relativity simulations", Reetika Dudi, Ananya

- Adhikari, Bernd Bruegmann, Tim Dietrich, Kota Hayashi, Kyohei Kawaguchi, Kenta Kiuchi, Koutarou Kyutoku, Masaru Shibata, and Wolfgang Tichy, PRD, 106 (2022), 084039
67. "General-relativistic neutrino-radiation magnetohydrodynamics simulation of black hole-neutron star mergers for seconds", Kota Hayashi, Sho Fujibayashi, Kenta Kiuchi, Koutarou Kyutoku, Yuichiro Sekiguchi, and Masaru Shibata, PRD, 108 (2022), 023008
 66. "Fallback accretion halted by r-process heating in neutron star mergers and gamma-ray bursts", Wataru Ishizaki, Kenta Kiuchi, Kunihito Ioka, and Shinya Wanajo, ApJ, 922 (2021), 185
 65. "Fallback accretion model for the years-to-decades X-ray counterpart to GW170817", Wataru Ishizaki, Kunihito Ioka, and Kenta Kiuchi, ApJ, 915 (2021), L13
 64. "Evolution of bare quark stars in full general relativity: I. Single star case", Enping Zhou, Kenta Kiuchi, Masaru Shibata, Antonios Tsokaros, and Koji Uryu, PRD, 103 (2021), 123001
 63. "Alternative possibility of GW190521: Gravitational waves from high-mass black hole-disk systems", Masaru Shibata, Kenta Kiuchi, Sho Fujibayashi, and Yuichiro Sekiguchi, PRD, 103 (2021), 064037
 62. "Properties of the remnant disk and the dynamical ejecta produced in low-mass black hole-neutron star mergers", Kota Hayashi, Kyohei Kawaguchi, Kenta Kiuchi, Koutarou Kyutoku and Masaru Shibata, PRD, 103 (2021), 043007
 61. "Reducing orbital eccentricity in initial data of black hole--neutron star binaries in the puncture framework", Koutarou Kyutoku, Kyohei Kawaguchi, Kenta Kiuchi, Masaru Shibata and Keisuke Taniguchi, PRD, 103 (2021), 023002
 60. "Viscous evolution of a massive disk surrounding stellar-mass black holes in full general relativity ", Sho Fujibayashi, Masaru Shibata, Shinya Wanajo, Kenta Kiuchi, Koutarou Kyutoku, and Yuichiro, Sekiguchi, PRD, 102 (2020), 123014
 59. "Reanalysis of the binary neutron star mergers GW170817 and GW190425 using numerical-relativity calibrated waveform models ", Tatsuya Narikawa, Nami Uchikata, Kyohei Kawaguchi, Kenta Kiuchi, Koutarou Kyutoku, Masaru Shibata and Hideyuki Tagoshi, PRR, 2 (2020), 04309
 58. "Post-merger Mass Ejection of Low-mass Binary Neutron Stars", Sho Fujibayashi, Shinya Wanajo, Kenta Kiuchi, Koutarou Kyutoku, Yuichiro, Sekiguchi, and Masaru Shibata, ApJ, 901 (2020), 122
 57. "Sub-radian-accuracy gravitational waveforms of coalescing binary neutron stars in-numerical relativity II : Systematic study on the equation of state, binary mass, and mass ratio", Kenta Kiuchi, Kyohei Kawaguchi, Koutarou Kutoku, Yuichiro Sekiguchi, Masaru Shibata, PRD, 101 (2020), 084006
 56. "Mass ejection from disks surrounding a low-mass black hole: Viscous neutrino-

- radiation hydrodynamics simulation in full general relativity", Sho Fujibayashi, Masaru Shibata, Shinya Wanajo, Kenta Kiuchi, Koutarou Kyutoku and Yuichiro, Sekiguchi, PRD, 101 (2020), 083029
55. "On the possibility of GW190425 being a black hole--neutron star binary merger", Koutarou Kyutoku, Sho Fujibayashi, Kohta Hayashi, Kyohei Kawaguchi, Kenta Kiuchi, Masaru Shibata and Masaomi Tanaka, ApJ, 890 (2020), L4
 54. "Jet Propagation in Neutron Star Mergers and GW170817", Hamid Hamidani, Kenta Kiuchi and Kunihito Ioka, MNRAS, 491 (2020), 3192
 53. "Discrepancy in tidal deformability of GW170817 between the Advanced LIGO twins", Tatsuya Narikawa, Nami Uchikata, Kyohei Kawaguchi, Kenta Kiuchi, Koutarou Kyutoku, Masaru Shibata and Hideyuki Tagoshi, PRR, 1 (2019) 033055
 52. "Constraint on the maximum mass of neutron stars using GW170817 event", Masaru Shibata, Enping Zhou, Kenta Kiuchi, and Sho Fujibayashi, PRD, 100 (2019), no. 2, 023015
 51. "Revisiting the lower bound on tidal deformability derived by AT 2017gfo", Kenta Kiuchi, Koutarou Kyutoku, Masaru Shibata, Keisuke Taniguchi, ApJL, 876 (2019), L31
 50. "Nothermal afterglow of the binary neutron star merger GW170817: a more natural modeling of electron energy distribution leads to a qualitatively different new solution", Haoxiang Lin, Tomonori Totani, Kenta Kiuchi, MNRAS, 453 (2019), 2155
 49. "Synchrotron radiation from the fast tail of dynamical ejecta of neutron star mergers", Kenta Hotokezaka, Kenta Kiuchi, Masaru Shibata, Ehud Nakar, Tsvi Piran, ApJ, 867 (2018), 95
 48. "Frequency domain gravitational waveform models for inspiraling binary neutron stars", Kyohei Kawaguchi, Kenta Kiuchi, Koutarou Kyutoku, Yuichiro Sekiguchi, Masaru Shibata, Keisuke Taniguchi, PRD, 97 (2018), no. 4, 044044
 47. "Mass Ejection from the Remnant of Binary Neutron Star Merger: Viscous-Radiation Hydrodynamics Study", Sho Fujibayashi, Kenta Kiuchi, Nobuya Nishimura, Yuichiro Sekiguchi, and Masaru Shibata, ApJ, 860 (2018), 64
 46. "Repeating and non-repeating fast radio bursts from binary neutron star mergers", Shotaro Yamasaki, Tomonori Totani and Kenta Kiuchi, PASJ, 70 (2018), 39
 45. "Global simulations of strongly magnetized remnant massive neutron stars formed in binary neutron star mergers", Kenta Kiuchi, Koutarou Kyutoku, Yuichiro Sekiguchi and Masaru Shibata, PRD, 97 (2018), no. 12, 124039 (Editors Suggestions)
 44. "Neutrino transport in black-hole neutron star binaries: neutrino emission and dynamical mass ejection", Koutarou Kyutoku, Kenta Kiuchi, Yuichiro Sekiguchi and Masaru Shibata, PRD, 97 (2018), no. 2, 023009

43. "GW170817: Modeling based on numerical relativity and its implications", Masaru Shibata, Sho Fujibayashi, Kenta Hotokezaka, Kenta Kiuchi, Koutarou Kyutoku, Yuichiro Sekiguchi, and Masaomi Tanaka, PRD, 96 (2017), no. 12, 123012
42. "High-Energy Neutrino Emission from Short Gamma-Ray Bursts: Prospects for Coincident Detection with Gravitational Wave", Shigeo, S. Kimura, Khota Murase, Peter Meszaros and Kenta Kiuchi, ApJL, 848 (2017) no.1, L4
41. "Sub-radian-accuracy gravitational waveforms of coalescing binary neutron stars in numerical relativity," Kenta Kiuchi, Kyohei Kawaguchi, Koutarou Kyutoku, Yuichiro Sekiguchi, Masaru Shibata, and Keisuke Taniguchi, PRD, 96 (2017) no.8, 084060
40. "Gravitational waves from remnant massive neutron stars of binary neutron star merger: Viscous hydrodynamics effects", Masaru Shibata, Kenta Kiuchi, PRD, 95 (2017), no. 12, 123003
39. "Properties of Neutrino-driven Ejecta from the Remnant of Binary Neutron Star Merger : Purely Radiation Hydrodynamics Case", Sho Fujibayashi, Yuichiro Sekiguchi, Kenta Kiuchi, Masaru Shibata, ApJ, 846 (2017), 114
38. "General relativistic viscous hydrodynamics of differentially rotating neutron stars", Masaru Shibata, Kenta Kiuchi, Yu-ichiro Sekiguchi, PRD, 95 (2017), 083005
37. "Dynamical mass ejection from the merger of asymmetric binary neutron stars: Radiation-hydrodynamics study in general relativity", Yuichiro Sekiguchi, Kenta Kiuchi, Koutarou Kyutoku, Masaru Shibata, and Keisuke Taniguchi, PRD, 93 (2016), 124046
36. "Multi-messenger search for rapidly-rotating strongly-magnetized newborn neutron stars in striped-envelope supernovae", Kazumi Kashiyama, Kohta Murase, Imre Bartos, Kenta Kiuchi, Raffaella Margutti, ApJ, 818 (2016), 94
35. "Efficient magnetic-field amplification due to the Kelvin-Helmholtz instability in binary neutron star mergers", Kenta Kiuchi, Pablo Cerda-Duran, Koutarou Kyutoku, Yuichiro Sekiguchi, Masaru Shibata, PRD, 92 (2015), no. 12, 124034 (December 2015, Kaleidoscope)
34. "High-resolution magnetohydrodynamics simulation of black hole-neutron star merger: Mass ejection and short gamma-ray burst", Kenta Kiuchi, Yuichiro Sekiguchi, Koutarou Kyutoku, Masaru Shibata, Keisuke Taniguchi, Tomohide Wada, PRD, 92 (2015), 064034 (Sep. 2015, Kaleidoscope)
33. "Gamma-ray and hard X-ray emission from pulsar-aided supernovae as a probe of particle acceleration in embryonic pulsar wind nebulae", Kohta Murase, Kazumi Kashiyama, Kenta Kiuchi, Imre Bartos, ApJ, 805 (2015), 82
32. "The dynamical mass ejection from binary neutron star mergers: Radiation-hydrodynamics study in general relativity", Yuichiro Sekiguchi, Kenta Kiuchi, Kyutoku Koutarou, Masaru Shibata, PRD, 91 (2015), 064059

31. “High resolution numerical-relativity simulations for the merger of binary magnetized neutron stars”, Kenta Kiuchi, Koutarou Kyutoku, Yuichiro Sekiguchi, Masaru Shibata, Tomohide Wada, PRD, 90 (2014), 041502 (R) (Aug. 2014, Kaleidoscope)
30. “Production of all the r-process nuclides in the dynamical ejecta of neutron star mergers”, Shinya Wanajo, Yuichiro Sekiguchi, Nobuya Nishimura, Kenta Kiuchi, Koutarou Kyutoku and Masaru Shibata, ApJ, 789 (2014), L39
29. “The Influence of Thermal Pressure on Equilibrium Models of Hypermassive Neutron Star Merger Remnants”, J. D. Kaplan, C. D. Ott, E. P. O'Connor, K. Kiuchi, L. Roberts and M. Duez, ApJ, 790 (2014), 19
28. “Radioactively Powered Emission from Black Hole-Neutron Star Merges”, Masaomi Tanaka, Kenta Hotokezaka, Koutarou Kyutoku, Shinya Wanajo, Kenta Kiuchi, Yuichiro Sekiguchi, Masaru Shibata, ApJ, 780 (2014), 31
27. “Progenitor Models of the Electromagnetic Transient Associated with the Short Gamma Ray Burst 130603B”, Kenta Hotokezaka, Koutarou Kyutoku, Masaomi Tanaka, Kenta Kiuchi, Yuichiro Sekiguchi, Masaru Shibata, Shinya Wanajo, ApJL, 778 (2013), L16
26. “Remnant massive neutron stars of binary neutron star mergers: Evolution process and gravitational waveform”, Kenta Hotokezaka, Kenta Kiuchi, Koutarou Kyutoku, Takayuki Muranushi, Yuichiro Sekiguchi, Masaru Shibata and Keisuke Taniguchi, PRD, 88 (2013), 044026
25. “The mass ejection from the merger of binary neutron stars”, Kenta Hotokezaka, Kenta Kiuchi, Koutarou Kyutoku, Hirotada Okawa, Yuichiro Sekiguchi, Masaru Shibata and Keisuke Taniguchi, PRD, 87 (2013), 024001
24. “Three dimensional evolution of differentially rotating magnetized neutron stars”, Kenta Kiuchi, Koutarou Kyutoku and Masaru Shibata, PRD, 86 (2012), 064008
23. “Stably stratified magnetized stars in general relativity”, Shijun Yoshida, Kenta Kiuchi, and Masaru Shibata, PRD, 86 (2012), 044012
22. “Gravitational waves and neutrino emission and effects of hyperons in binary neutron star mergers”, Kenta Kiuchi, Yuichiro Sekiguchi, Koutarou Kyutoku and Masaru Shibata, CQG, 29 (2012), 124003
21. “Current Status of Numerical-Relativity Simulations in Kyoto”, Yuichiro Sekiguchi, Kenta Kiuchi, Koutarou Kyutoku and Masaru Shibata, PTEP, 01A304 (2012)
20. “Effects of hyperons in binary neutron star mergers”, Yuichiro Sekiguchi, Kenta Kiuchi, Koutarou Kyutoku and Masaru Shibata, PRL, 107 (2011), 211101
19. “Gravitational waves and neutrino emission from the merger of binary neutron stars”, Yuichiro Sekiguchi, Kenta Kiuchi, Koutarou Kyutoku and Masaru Shibata, PRL, 107 (2011), 051102 (On the Cover)

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