

Curriculum Vitae – October 2022

Kenta Hotokezaka

Address

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Citizenship: Japanese

Professional Experience

Sept. 2019	Associate professor
– present	Research Center for the Early Universe, University of Tokyo, Japan
Oct. 2017	Lyman Spitzer Jr. Fellow
– Aug. 2019	Department of Astrophysical Sciences, Princeton University, USA
Jun. 2017	Flatiron Fellow
– Aug. 2017	Center for Computational Astrophysics, Flatiron Institute, USA
Apr. 2014	Post-Doctoral Fellow
– Dec. 2016	Rachla Institute of Physics, Hebrew University of Jerusalem, Israel

Education

Mar. 2014	Ph.D. in Physics, Kyoto University, Japan Advisor: Prof. Masaru Shibata
Mar. 2011	M.S. in Physics, Kyoto University, Japan Advisor: Prof. Masaru Shibata
Mar. 2009	B.S. in Physics, Tohoku University, Japan

Fellowships and Awards

2022	Yukawa-Kimura Prize
2019	Young Scientist Award of the Physical Society of Japan
2019	Astronomical Society of Japan Young Astronomer Award
2017	Lyman Spitzer Jr. Fellowship
2017	Einstein Fellowship (declined)
2016	Flatiron Fellowship
2012	JSPS Research fellow

Research Interests

Gravitational waves and electromagnetic counterparts of compact binary mergers, black hole binaries, r -process elements, gamma-ray bursts, and other transient phenomena.

Grants as PI

1. Nebular emission of Kilonovae, 04/20–03/23, 3.64M JPY (25K USD), JSPS Grant-in-Aid for Early-Career Scientists, No. 20K14513

2. Theory for Gravitational-Wave Astronomy, 04/22–03/25, 20M JPY (138K USD), JST FOREST program, No. JPMJFR2136

(1 USD \approx 145 JPY is assumed)

Professional Service

Peer Review:

Monthly Notice of the Royal Astronomical Society, The Astrophysical Journal, Journal of Cosmology and Astroparticle Physics, Nature, Nature Astronomy, Physical Review, Astronomy and Astrophysics, Living Review of Relativity

Workshop & Conference Organizer:

1. YITP long-term workshop (LOC), Kyoto, Japan, 09,10/2019
2. 31st Japan General Relativity & Gravity (LOC chair), Tokyo, Japan, 10/2022
3. Kilonova: Multimessenger and Multiphysics (SOC), Bad Honnef, Germany, 11/2022
4. GWPAW (SOC), Melbourne, Australia, 12/2022

Thesis Defense Committee:

Kojiro Kawana (U. of Tokyo), Leo Tsukada (U. of Tokyo), Naoki Aritomi (U. of Tokyo), Xi-angchong Li (U. of Tokyo), Toshinori Hayashi (U. of Tokyo), Shunsuke Onisi (U. of Tokyo), Kana Moriwaki (U. of Tokyo)

Advising Experience

Undergraduates:	Jacob Tyles (Princeton)	09/17–01/18
Graduate Students:	Yuta Tarumi (U. of Tokyo)	09/20–, 2 publications
	Yuta Shiraishi (U. of Tokyo)	04/21–
	Rin Takada (U. of Tokyo)	04/22–
Postdoctoral:	Dr. Daisuke Toyouchi	04/21–
	Dr. Christopher M. Irwin	01/22–
	Dr. Kazuya Takahashi	04/22–

Teaching Experience

1. Special Topics in Physics BXIX (Gravitational Wave Astronomy, Fall 2020)
2. Cosmology I (with Prof. Yasushi Suto, Spring 2021)
3. Physics Seminar (Fall 2021)

Invited Lectures at International Schools

[2] Summer School on Gravitational-Wave Astronomy, Aug. 13th- 24th, 2018, ICTS, Bangalore, India. “*Physics and astrophysics of electromagnetic counterparts of binary mergers*”

[1] International School on Numerical Relativity and Gravitational Waves, Jul. 27th- Aug. 2nd, 2018, Beijing, China. “*Physics of Neutron Stars*”

Invited Talks at International Conferences and Workshops

[19] “*Element Identification in Kilonova*”, EM Counterparts to GW Sources, Jun 19- Jul 1, 2022, Rehovot, Israel

[18] “*Kilonova*”, NBIA Workshop on Radiation Transfer in Astrophysics, Jun 6-10, 2022, Copenhagen, Denmark

[17] “*Remnants and jets of neutron star merger*”, Gravitational-Wave Physics and Astronomy Workshop, Dec 14-17, 2021, Hybrid, Hannover Germany

[16] “*Models for the kilonova*”, GWUniverse Inauguration Workshop: Cosmology with gravitational waves, Oct 8, 2021, online

[15] “*Kilonova Nebula and r-process origin*”, YKIS 2019, Oct 7-11, 2019, Kyoto, Japan

[14] “*Radio counterparts to compact binary merger with ngVLA*”, ngVLA Workshop, Sep. 17-20, 2019, NAOJ, Japan

[13] “*Mass ejection from neutron star merger and Kilonova*”, R-process sources in the Universe, Arizona State University, Mar. 27-30, 2019

[12] “*EM-GW Theory*”, Time-Domain Astrophysics with Swift III Meeting, Oct 2nd- 3rd, 2018, Clemson, South Carolina.

[11] “*Macronova models*”, The 3rd Panda Symposium, June 18- 22nd, 2018, Chengdu, China.

[10] “*Simulations of Neutron Star Mergers*”, CIPANP 2018, May 29th- June 3rd, 2018, Palm Springs, California.

[9] “*Macronova and r-process Elements in Neutron Star Mergers*”, The transient Universe, Feb. 26th-Mar. 1st, 2018, NTU, Singapore.

[8] “*Neutron star merger contribution to r-process abundance*”, KITP conference, GW170817, The first double neutron star merger, Dec. 5-8th, 2017, Santa Barbara, USA.

[7] “*Numerical relativity simulations of coalescing neutron star binaries*”, Gravitational waves and compact objects, Nov. 23rd, 2016, Haifa, Israel.

[6] “*R-process Kilonova/Macronova*”, 8th Huntsville Gamma-Ray Burst Symposium, Oct. 24th - 28th, 2016, Huntsville, USA.

[5] “*Detectability of Radio Transients*”, New Frontiers in Radio Astronomy, Dec. 7th - 9th, 2015, Rehovot, Israel.

[4] “*Binary Neutron Star Merger: Numerical-Relativity Study*” Transients’ Unsolved Mysteries Workshop, Oct. 20th - 23rd, 2014, Eilat, Israel.

[3] “*Mass Ejection from a Binary Neutron Star and Kilonova/Macronova*”, Nuclear Physics and Astrophysics of Neutron-Star Mergers and Supernovae, and the Origin of R-Process Elements, Sep. 8th - 12th, 2014, ECT*, Trento, Italy.

[2] “*Numerical Relativity: Application to Gravitational-Wave Science and Astrophysics*”, The 23rd Workshop on General Relativity and Gravitation in Japan, Nov. 5th - 8th, 2013, Hirosaki University,

Hirosaki, Japan.

[1] “*Dynamical Mass Ejection from Coalescing Binary Neutron Stars*”, 2013 Multi-Messenger Transient Astrophysics Workshop, May 6th - 10th, 2013, KIAA, Peking University, Beijing, China.

Colloquia and Seminars

Nagoya (7/2022), NAOJ (11/2021), AEI (11/2021), Tohoku (10/2021), Harvard (12/2019), UC Berkeley (8/2019, 10/2015), UC Santa Barbara (2/2019), UIUC (2/2019, 12/2018), Tokyo (1/2018), IPMU (12/2021, 3/2018), Columbia (3/2018), Caltech (2/2018), CITA (10/2017), Purdue (4/2017), Princeton (2/2017), Penn State (2/2017), UC Santa Cruz (10/2015), ASTRON (3/2015), Radboud (3/2015), Hebrew (2/2015), UW Milwaukee (2/2014).