Davide Gerosa | Presentations

☎ +1 626-395-6829 • ⊠ dgerosa@caltech.edu • December 13, 2018

Counts: 29 talks at conferences, 25 talks at department seminars, 7 posters at conferences, (out of which **38** invited presentations).

Invited talks marked with *.

Talks at conferences:

- 29.* Black-hole kicks: how and where. Taipei Gravitational Wave Group (TGWG) Conference, Taipei, Taiwan, Oct 2018.
- **28.*** Forming binary black holes out of stars. Taipei Gravitational Wave Group (TGWG) Conference, Taipei, Taiwan, Oct 2018.
- 27.* Getting ready: exploit LISA to improve LIGO's tests of General Relativity. Einstein Fellows Symposium 2018, Cambridge MA, USA, Oct 2018.
- Runaways: recoiling black holes and their gravitational-wave sig..natures. 26. COSPAR 2018 42nd assembly, Pasadena CA, USA, July 2018.
- An unprecedented opportunity: black-hole spectroscopy with LISA forewarnings and LIGO optimizations. 25. 12th LISA Symposium, Chicago IL, USA, July 2018.
- 24.* What do LIGO's black holes remember? April APS Meeting, Columbus OH, USA, Apr 2018.
- 23. Modeling black hole kicks with waveform approximants. 34rd Pacific Coast Gravity Meeting, Pasadena CA, USA, Mar 2018.
- **22.** Black holes from other black holes? Gravity@Malta2018, Valletta, Malta, Jan 2018.
- **21.*** The gravitational-wave astronomy revolution. 2nd Milan Christmas Workshop, Milan, Italy, Dec 2017.
- Reanalysis of LIGO black-hole coalescences with alternative prior assumptions. 20. IAU Symposium 338, Baton Rouge LA, USA, Oct 2017.
- **19.*** Careful with the priors: a reanalysis of LIGO black-hole coalescences. Einstein Fellows Symposium 2017, Cambridge MA, USA, Oct 2017.
- 18. Empty galaxies to constrain black-hole superkicks. 3rd Swinburne-Caltech Galaxy Workshop, Pasadena CA, USA, Sept 2017.
- **17.*** Surprises from the spins: astrophysics and relativity with detections of spinning black-hole mergers. 12th Edoardo Amaldi Conference, Pasadena CA, USA, Jul 2017 (plenary talk). Proceedings published by IoP (Mar 2018).
- 16. Core collapse and compact-object formation to test General Relativity. LIGO Core Collapse Supernova Workshop, Pasadena CA, USA, Mar 2017.
- 15. The curious and simple limit of equal-mass precessing black-hole binaries. 33rd Pacific Coast Gravity Meeting, Santa Barbara CA, USA, Mar 2017.
- **14.*** Spins remember: spin signatures of astrophysical black hole formation mechanisms. Strong Gravity and Binary Dynamics with Gravitational Wave Observations, Oxford MS, USA, Feb 2017.
- **13.** The kick is in the waveform: detection of black-hole recoils. The Dawning Era of Gravitational-Wave Astrophysics, Aspen CO, USA, Feb 2017.
- **12.** *Kicked waveforms: prospects for direct detection of black hole recoils.* "April" APS Meeting, Washington DC, USA, Jan 2017.
- 11.* Getting the most out of gravitational-wave observations: kicks and spin precession. Einstein Fellow Symposium 2016, Cambridge MA, USA, Oct 2016.
- **10.** Averaging the average: multi-timescale analysis of precessing black-hole binaries. 21st International Conference on General Relativity and Gravitation (GR21), New York NY, USA, Jul 2016.

- **9.** Differential accretion means differential alignment. BritGrav 16, Nottingham, UK, Apr 2016.
- A new instability to black-hole spin precession.
 28th Texas Symposium on Relativistic Astrophysics, Geneva, Switzerland, Dec 2015.
- **7.** Binary black-hole spin precession: a tale of three timescales. One Hundred Years of Strong Gravity, Lisbon, Portugal, Jun 2015.
- **6.** *Giant and empty: black-hole occupation fraction in brightest cluster galaxies.* BritGrav 15, Birmingham, UK, Apr 2015.
- **5.*** Not so fast: gas-driven spin alignment in merging black-hole binaries. Milan Christmas Workshop, Milan, Italy, Dec 2014.
- **4.** *Missing black holes in brightest cluster galaxies as evidence for the occurrence of superkicks.* 99 years of Black Holes, Potsdam, Germany, May 2014.
- **3.** *Rival families: waveforms from resonant black-hole binaries as probes of their astrophysical formation history.* 3rd Session of the Sant Cugat Forum on Astrophysics, Sant Cugat, Spain, Apr 2014. Proceedings published by Springer (Jan 2015).
- **2.** *Gravitational-wave signals from stellar-mass black-hole binaries in resonant configurations.* BritGrav 14, Cambridge, UK, Mar 2014.
- Spin alignment effects in stellar mass black hole binaries.
 22nd Midwest Relativity Meeting, Chicago IL, USA, Sep 2012.

Talks at department seminars:

- **25.*** How to kick black holes out of their galaxies. Strong Gravity Seminars, Perimeter Institute for Theoretical Physics, Waterloo, Canada, Sep 2018.
- **24.*** *(Astro)physical consequences of black-hole recoils.* CITA Seminars, Canadian Institute for Theoretical Astrophysics, Toronto, Canada, Sep 2018.
- **23.*** Black-hole spins and the astrophysics of LIGO's sources. AEI seminars, Albert Einstein Institute, Hannover, Germany, Apr 2018.
- **22.*** Dynamics of spinning black-hole binaries as a tool to uncover their formation pathway. AEI seminars, Albert Einstein Institute, Potsdam, Germany, Mar 2018.
- **21.*** *Runaways: phenomenology and detectability of black-hole recoils.* Theoretical Astrophysics seminars, University of Florida, Gainsville FL, USA, Mar 2018.
- **20.*** Testing relativity with past and future supernova explosions. Physics colloquia, Montana State University, Bozeman MT, USA, Feb 2018.
- 19.* More astrophysics out of the first gravitational wave detections. GSSI seminars, Gran Sasso Science Institute, L'Aquila, Italy, Jan 2018.
- 18.* Where do binary black holes come from? How do we find out? Theory seminars, Sapienza Università di Roma, Rome, Italy, Jan 2018.
- **17.*** Monopole radiation, hyper scalarization and inverse chirps: the promise of testing gravity with stellar collapse. Steward Observatory lunch seminars, University of Arizona, Tucson AZ, USA, Nov 2017.
- **16.*** Black-hole binary spin precession: from relativity to astronomy. GRITTS seminars, Massachusetts Institute of Technology LIGO Lab, Cambridge MA, USA, Oct 2017.
- **15.*** *Constraining the astrophysics behind the first LIGO detections.* Physics colloquia, University of Texas at Dallas, Richardson TX, USA, Sep 2017.
- **14.*** Binary black hole astrophysics with the first gravitational-wave events. Theory group seminars, Universitat de Barcelona, Barcelona, Spain, May 2017.
- **13.*** Astrophysics with the first gravitational-wave events: from supernova asymmetries to multiple black-hole generations.

GR seminars, Department Applied Mathematics and Theoretical Physics, Cambridge, UK, May 2017.

- 12.* Black-hole binaries on the road to merger. Oskar Klein Center colloquia, Stockholms Universitet, Stockholm, Sweden, Jan 2017.
- **11.*** A tale of astronomy and relativity: formation and evolution of black-hole binaries. Department seminar series, Università degli Studi di Milano, Milan, Italy, Apr 2016.

- **10.*** A new paradigm for black-hole spin precession. Astrophysics seminars, University of Birmingham, Birmingham, UK, Feb 2016.
- **9.*** New insights on binary black-hole spin precession. Relativity division seminars, Albert Einstein Institute, Potsdam, Germany, Feb 2016.
- **8.*** Spontaneous scalarization: a promising avenue for gravitational-wave astronomy. GReCO seminars, Institut d'Astrophysique de Paris, Paris, France, Jan 2016.
- **7.*** Innovative multi-timescale approach to binary black holes. Theoretical Astrophysics seminars, Università degli Studi di Milano, Milan, Italy, Dec 2015.
- **6.*** Stellar collapse in scalar-tensor theories of gravity: prospects for gravitational-wave astronomy. Gravity and Particles seminar, University of Nottingham, Nottingham, UK, Dec 2015
- **5.*** Core collapse and relativistic stars in scalar-tensor theories of gravity. Gravity seminars, STAG Research Center, Southampton, UK, Oct 2015.
- **4.*** Binary black-hole spin alignment: gas-driven and relativistic inspiral. Wednesday seminars, Institute of Astronomy, Cambridge, UK, Jun 2015.
- **3.*** Spin-orbit resonances: unveiling black-hole binary dynamics on both stellar-mass and supermassive scale. Gravitational Physics seminars, Cardiff University, Cardiff, UK, May 2014.
- **2.*** Spin-orbit resonances: unveiling black-hole binary dynamics on both stellar-mass and supermassive scale. GR seminars, Department Applied Mathematics and Theoretical Physics, Cambridge, UK, May 2014.
- **1.*** Spin alignment and resonant plane in stellar mass black hole binaries. Lunch talks, Leiden Observatory, Leiden, The Netherlands, Jan 2012.

Posters at conferences:

- **7.** *PRECESSION: efficient black-hole binary evolution with python.* Mathematics and Big Data Showcase, Cambridge, UK, Apr 2016.
- 6.* Numerical relativity group at University of Cambridge.
 Einstein's Legacy: celebrating 100 years of general relativity, London, UK, Nov 2015.
- **5.*** Formation and evolution of compact objects in relativity and modified gravity. 5th DiRAC Science Day, Cambridge, UK, Sep 2015.
- **4.** New analytic solutions to binary black-hole dynamics: from spin precession to inspiral. Eurostrings 2015, Cambridge, UK, Mar 2015.
- 3.* Analytic solutions to binary black-hole spin precession: recalling Kepler's two-body problem. Compact Objects as Astrophysical and Gravitational Probes, Leiden, The Netherlands, Jan 2015. Best young presentation award.
- **2.** Efficient precession-averaged evolution of spinning black-hole binaries. Towards gravitational-wave astronomy: data analysis techniques and challenges, London, UK, Dec 2014.
- **1.** Morphologies and binary transfer: a new approach to the post-newtonian dynamics of precessing black-holes binaries.

DPG Physics School "General Relativity @99", Bad Honnef, Germany, Sep 2014.