Javier Roulet

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Education	PRINCETON UNIVERSITY, USA Ph.D. in Physics Advisor: Prof. Matias Zaldarriaga	2016 – Expected 2021
	UNIVERSIDAD DE BUENOS AIRES, ARGENTINA Licenciatura in Physics Thesis: *Average Activities in Populations of Excitable Phase Oscillators* Advisor: Prof. Gabriel B. Mindlin	2011 – 2016
Teaching Experience	ASSISTANT IN INSTRUCTION PRINCETON UNIVERSITY, USA Courses: Physics for Future Leaders, Advanced Electromagnetism, Introduction to General Relativity, Advanced Physics, Introduction to the Quantum Theory, General Physics	Sep. 2017 – Present
	TEACHING ASSISTANT UNIVERSIDAD DE BUENOS AIRES, ARGENTINA Courses: Fluid Dynamics, Wave Mechanics, Physics for Biologists	Mar. 2015 – Aug. 2016
Fellowships	President's Fellowship, Princeton University	Sep. 2016 – Jun. 2017
	Dean's Grant Research Allowance, Princeton University	2016
	CONICET Doctoral Fellowship	Apr. – Aug. 2016

Publications

[1] Javier Roulet, Tejaswi Venumadhav, Barak Zackay, Liang Dai and Matias Zaldarriaga, (2020). *Binary Black Hole Mergers from LIGO/Virgo O1 and O2: Population Inference Combining Confident and Marginal Events.* Physical Review D. 102, 123022

[2] Liang Dai, Barak Zackay, Tejaswi Venumadhav, Javier Roulet and Matias Zaldarriaga (2020). *Search for Lensed Gravitational Waves Including Morse Phase Information: An Intriguing Candidate in O2.* arXiv:2007.12709 [astro-ph].

[3] Yiwen Huang, Carl-Johan Haster, Javier Roulet, Salvatore Vitale, Aaron Zimmerman, Tejaswi Venumadhav, Barak Zackay, Liang Dai and Matias Zaldarriaga (2020). *Source properties of the lowest signal-to-noise-ratio binary black hole detections.* Physical Review D. 102, 103024

[4] Barak Zackay, Liang Dai, Tejaswi Venumadhav, Javier Roulet and Matias Zaldarriaga (2019). *Detecting Gravitational Waves With Disparate Detector Responses: Two New Binary Black Hole Mergers.* arXiv:1910.09528 [astro-ph.HE].

[5] Barak Zackay, Tejaswi Venumadhav, Javier Roulet, Liang Dai and Matias Zaldarriaga (2019). *Detecting Gravitational Waves in Data with Non-Gaussian Noise.* arXiv:1908.05644 [astro-ph.IM].

[6] Tejaswi Venumadhav, Barak Zackay, Javier Roulet, Liang Dai and Matias Zaldarriaga (2020). *New Binary Black Hole Mergers in the Second Observing Run of Advanced LIGO and Advanced Virgo.* Physical Review D. 101, 083030.

[7] Javier Roulet, Liang Dai, Tejaswi Venumadhav, Barak Zackay and Matias Zaldarriaga (2019). *Template Bank for Compact Binary Coalescence Searches in Gravitational Wave Data: A General Geometric Placement Algorithm.* Physical Review D. 99.123022.

[8] Barak Zackay, Tejaswi Venumadhav, Liang Dai, Javier Roulet and Matias Zaldarriaga (2019). *A Highly Spinning and Aligned Binary Black Hole Merger in the Advanced LIGO First Observing Run.* Physical Review D. 100, 023007.

[9] Tejaswi Venumadhav, Barak Zackay, Javier Roulet, Liang Dai and Matias Zaldarriaga (2019). *A New Search Pipeline for Compact Binary Mergers: Results for Binary Black Holes in the First Observing Run of Advanced LIGO.* Physical Review D. 100, 023011.

[10] Javier Roulet and Matias Zaldarriaga (2019). *Constraints on Binary Black Hole Populations from LIGO–Virgo Detections.* Monthly Notices of the Royal Astronomical Society. 484, 4216.

[11] Javier Roulet and Gabriel B. Mindlin (2017). *A Diagrammatic Representation of Phase Portraits and Bifurcation Diagrams of Two-Dimensional Dynamical Systems.* International Journal of Bifurcation and Chaos. 27. 1730045. 10.1142/S0218127417300452

[12] Javier Roulet and Gabriel B. Mindlin (2016). *Average Activity of Excitatory and Inhibitory Neural Populations.* Chaos: An Interdisciplinary Journal of Nonlinear Science. 26. 10.1063/1.4962326

Talks

Invited Talk, Astrophysics Coffee, Weizmann Institute of Science 2020
Binary Black Hole Mergers from LIGO/Virgo O1 and O2:
Population Inference Combining Confident and Marginal Events

Invited Talk, Brown Bag Lunch, MIT Kavli Institute 2020
Characterizing the population of binary black holes with independently found detections

Invited Seminar, Max Planck Institute for Gravitational Physics
(Albert Einstein Institute) 2020
Binary Black Hole Populations with LIGO–Virgo

Talk, APS April Meeting 2020 2020
Binary black hole populations including independently found events
and marginal triggers

Invited Talk, High Energy Physics Journal Club, Princeton University 2020
Binary Black Hole Populations with LIGO–Virgo

Talk, 22nd International Conference on General Relativity and Gravitation –
13th Edoardo Amaldi Conference on Gravitational Waves 2019
A Highly Spinning and Aligned Binary Black Hole Merger in the Advanced LIGO
First Observing Run

Invited Seminar, Institut de Ciències del Cosmos, Universitat de Barcelona 2019
Binary Black Hole Populations with LIGO–Virgo

Talk, JSI Workshop 2018: Gravitational Wave Physics and Astronomy Workshop 2018
Constraints on Binary Black Hole Populations from LIGO–Virgo Detections

Poster, Princeton Research Day, Princeton University 2017
Average activity of excitatory and inhibitory neural populations

Professional service

Referee for *Chaos, Solitons and Fractals: the interdisciplinary journal of Nonlinear Science, and Nonequilibrium and Complex Phenomena.*