

# Elena Giorgi

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Department of Mathematics 606, Columbia University, New York NY  
(updated December 2025)

## RESEARCH INTERESTS

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General Relativity, Hyperbolic PDEs, Differential Geometry

## ACADEMIC APPOINTMENTS

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<b>Columbia University</b> <i>Assistant Professor, Department of Mathematics</i>	New York, NY <i>July 2021 – present</i>
<b>Princeton University</b> <i>Postdoctoral Research Associate, Gravity Initiative</i>	Princeton, NJ <i>Sept. 2019 – June 2021</i>

## EDUCATION

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<b>Columbia University</b> <i>Ph.D. in Mathematics</i> <i>Thesis: “The linear stability of Reissner-Nordström spacetime for small charge”</i> <i>Advisors: Mu-Tao Wang (Columbia University), Sergiu Klainerman (Princeton University)</i>	New York, NY <i>Sept. 2015 – May 2019</i>
<b>Ecole Normale Supérieure de Lyon</b> <i>M.Sc. in Mathematical Physics (M2). Advisor: Abdelghani Zeghib</i>	Lyon, France <i>Sept. 2014 – July 2015</i>
<b>Université Paris Sud</b> <i>M.Sc. in Mathematics (M1). Advisor: Jacques Smulevici</i>	Orsay, France <i>Sept. 2013 – July 2014</i>
<b>Università di Pisa</b> <i>B.Sc. in Mathematics. Advisor: Bruno Martelli</i>	Pisa, Italy <i>Sept. 2010 – July 2013</i>

## GRANTS AND AWARDS

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<b>2024 Sloan Research Fellowship</b> <i>Sloan Foundation, \$75,000</i>	<i>2024 – 2026</i>
<b>NSF CAREER Grant DMS-2336118</b> <i>“Gravitational and Electromagnetic Waves on Black Holes”, \$454,261</i>	<i>2024 – 2029</i>
<b>Frontiers of Science Award (previously known as Best Paper Award) in General Relativity</b> <i>International Congress of Basic Science, Beijing, \$25,000.00</i>	<i>2023</i>
<b>NSF Grant DMS-2306143</b> <i>“Physical-space estimates on black hole perturbations”, \$223,924.00</i>	<i>2023 – 2026</i>
<b>Simons Junior Faculty Fellows Award # 825870</b> <i>Columbia University, Simons Foundation</i>	<i>2021 – 2024</i>
<b>NSF Grant DMS-2006741, transferred to DMS-2128386</b> <i>“The mathematical theory of black holes with matter”, \$119,623.00</i>	<i>2020 – 2023</i>
<b>American Mathematical Society (AMS) Simons Travel Grant</b> <i>American Mathematical Society, declined after receiving NSF grant, \$5000.00</i>	<i>2020</i>
<b>Association Women in Mathematics (AWM) Dissertation Prize 2020</b> <i>Association Women in Mathematics, \$500.00</i>	<i>2020</i>
<b>Graduate Student Teaching Award</b> <i>Department of Mathematics, Columbia University, \$2,500.00</i>	<i>2018 – 2019</i>
<b>Peter and Catherine Klein Fellowship</b> <i>Department of Mathematics, Columbia University</i>	<i>2017 – 2018</i>
<b>Master scholarship Labex Milyon</b> <i>Ecole Normale Supérieure de Lyon, €10,000.00</i>	<i>2014 – 2015</i>
<b>Master scholarship Fondation Jacques Hadamard</b> <i>Université Paris Sud, €10,000.00</i>	<i>2013 – 2014</i>
<b>INDAM Undergraduate scholarship</b> <i>Istituto Nazionale di Alta Matematica, €12,000.00</i>	<i>2010 – 2013</i>

## PUBLICATIONS

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1. **Boundedness and Decay for the Teukolsky System in Kerr-Newman Spacetime II: The Case  $|a| \ll M, |Q| < M$  in axial symmetry**  
Elena Giorgi, Jingbo Wan, to appear in *Advances in Theoretical and Mathematical Physics*, 23 pages
2. **Physical-space estimates for axisymmetric waves on extremal Kerr spacetime**  
Elena Giorgi, Jingbo Wan, *Journal of Functional Analysis*, Vol. 287, Issue 12, 110668 (2024), 29 pages
3. **The Carter tensor and the physical-space analysis in perturbations of Kerr-Newman spacetime**  
Elena Giorgi, *Journal of Differential Geometry*, Vol. 127, No. 1, pp. 277-371 (2024), 95 pages
4. **Electromagnetic-gravitational perturbations of Kerr-Newman spacetime: the Teukolsky and Regge-Wheeler equations**  
Elena Giorgi, *Journal of Hyperbolic Differential Equations*, Vol. 19, No. 01, pp. 1-139 (2022), 139 pages
5. **Numerical computation of second order vacuum perturbations of Kerr black holes**  
Justin L. Ripley, Nicholas Loutrel, Elena Giorgi, Frans Pretorius, *Physical Review D* 103, 104018 (2021), 29 pages
6. **Second order perturbations of Kerr black holes: Formalism and reconstruction of the first order metric**  
Nicholas Loutrel, Justin L. Ripley, Elena Giorgi, Frans Pretorius, *Physical Review D* 103, 104017 (2021), 19 pages
7. **The linear stability of Reissner-Nordström spacetime: the full subextremal range**  
Elena Giorgi, *Communications in Mathematical Physics*, 380, 1313-1360 (2020), 48 pages
8. **The linear stability of Reissner-Nordström spacetime for small charge**  
Elena Giorgi, *Annals of PDE*, 6, 8 (2020), 145 pages
9. **Boundedness and decay for the Teukolsky system of spin  $\pm 2$  on Reissner-Nordström spacetime: the case  $|Q| \ll M$**   
Elena Giorgi, *Annals Henri Poincaré*, 21, 2485 - 2580 (2020), 96 pages
10. **Coupled gravitational and electromagnetic perturbations of Reissner-Nordström spacetime in a polarized setting**  
Elena Giorgi, *Advances in Theoretical and Mathematical Physics*, 24, 4, 979 - 1025 (2020), 46 pages
11. **Boundedness and decay for the Teukolsky equation of spin  $\pm 1$  on Reissner-Nordström spacetime: the  $\ell = 1$  spherical mode**  
Elena Giorgi, *Classical Quantum Gravity*, 36, 205001 (2019), 48 pages
12. **On the local extension of Killing vector fields in electrovacuum spacetimes**  
Elena Giorgi, *Annales Henri Poincaré*, 20, 2271 - 2293 (2019), 23 pages

## RESEARCH MONOGRAPHS

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13. **Wave equation estimates and the nonlinear stability of slowly rotating Kerr black holes**  
Elena Giorgi, Sergiu Klainerman, Jérémie Szeftel, *Pure and Applied Mathematics Quarterly*, Vol. 20, Issue 7 (2024), pp. 2865-3849, 985 pages

## PREPRINTS

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14. **Cauchy data for multiple collapsing boson stars**  
Elena Giorgi, Dawei Shen, Jingbo Wan, preprint *arXiv:2512.01844*, 53 pages
15. **Einstein-Maxwell Equations on Mass-Centered GCM Hypersurfaces**  
Allen Juntao Fang, Elena Giorgi, Jingbo Wan, preprint *arXiv:2510.10814*, 46 pages
16. **Mass-Centered GCM Framework in Perturbations of Kerr(-Newman)**  
Allen Juntao Fang, Elena Giorgi, Jingbo Wan, preprint *arXiv:2510.10811*, 36 pages

17. **Conservation Laws and Boundedness for Linearised Einstein-Maxwell Equations on the Reissner-Nordström Black Hole**  
Marios A. Apetroae, Sam C. Collingbourne, [Elena Giorgi](#), *preprint arXiv:2506.04812*, 28 pages
18. **Boundedness and Decay for the Teukolsky System in Kerr-Newman Spacetime I: The Case  $|a|, |Q| \ll M$**   
[Elena Giorgi](#), *preprint arXiv:2311.07408*, 109 pages
19. **A general formalism for the stability of Kerr**  
[Elena Giorgi](#), Sergiu Klainerman, Jérémie Szeftel, *preprint arXiv:2002.02740*, 139 pages

## EXPOSITORY SURVEYS

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20. **Electromagnetic-gravitational perturbations of Kerr-Newman black hole**  
[Elena Giorgi](#), *International Journal of Modern Physics D (2025) 2540003*
21. **Decay for the Teukolsky system in Kerr-Newman**  
[Elena Giorgi](#), *Mathematisches Forschungsinstitut Oberwolfach, Report No. 36 (2024), 17–21*
22. **Recent progress on the stability of charged black holes**  
[Elena Giorgi](#), *Proceedings of the International Congress of Basic Science (2024)*
23. **The Mathematics of Stable Black Holes**  
[Elena Giorgi](#), *Notices of the AMS, Vol. 70, Number 4, 552–563 (2023)* (also translated in Chinese for *Mathematical Advances in Translation*)
24. **Stable black holes: in vacuum and beyond**  
[Elena Giorgi](#), *Bull. Amer. Math. Soc., Vol. 60, Number 1, 1–27 (2023)*
25. **The stability of black holes with matter**  
[Elena Giorgi](#), *Current Events Bulletin Booklet, American Mathematical Society (2022)*
26. **The stability of charged black holes**  
[Elena Giorgi](#), *Mathematisches Forschungsinstitut Oberwolfach, Report No. 40 (2021), 43–46*

## CAREER ADVICE

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27. **Don't give a terrible talk**  
[Elena Giorgi](#), *Notices of the AMS, Early Career Section (January 2023)*

## INVITED COLLOQUIA

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- **Department Colloquium**, Temple University, April 2025
- **Department Colloquium**, Stony Brook University, Feb. 2024
- **Nottingham Centre of Gravity**, University of Nottingham, May 2023
- **Joint Online Mathematical Relativity Colloquium (JoMaReC)**, virtual, Dec. 2022
- **Public Lecture at the virtual International Congress of Mathematics**, IMU, July 2022
- **Current Events Bulletin, Joint Mathematics Meeting**, AMS, Seattle (moved to virtual), Jan. 2022 (postponed to April 2022)
- **Mathematics Department Colloquium**, University of California Berkeley (virtual), Jan. 2021
- **Colloquium Seminar**, Northwestern University (virtual), Jan. 2021
- **Pure Math Seminar**, MIT (virtual), Jan. 2021
- **Analysis/PDE Seminar**, UCLA (virtual), Jan. 2021
- **Special Department Colloquium**, Columbia University (virtual), Jan. 2021
- **Department Colloquium**, Stony Brook University (virtual), Jan. 2021
- **Special Colloquium**, Rutgers University (virtual), Nov. 2020
- **Department Colloquium**, Brown University (virtual), Oct. 2020
- **Colloquium**, Black Hole Initiative, Harvard University, Oct. 2019

## INVITED LECTURE SERIES

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- **Summer School on Geometry and Gravity**, SISSA, Italy, July 2025
- **EWM-EMS Summer School “The Cauchy problem in General Relativity”**, Institut Mittag Leffler, Sweden, June 2022

## INVITED CONFERENCE TALKS

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- **Black holes in General Relativity Conference**, Fields Institute, Toronto, May 2026
- **APS Global Physics Summit, Mathematical General Relativity session**, Denver, March 2026
- **Invited Address at the 2026 Spring Eastern Sectional Meeting of the AMS**, Boston College, March 2026
- **Partial Differential Equations, Analysis and Geometry Conference**, IHES, Jan. 2026
- **Partial differential equations at the intersection of gravity, fluids, and waves**, AMS 2025 Fall Southeastern Sectional Meeting, Tulane University, Oct. 2025
- **Plenary Speaker at 24th International Conference on General Relativity and Gravitation GR24&Amaldi16**, University of Glasgow, July 2025
- **Conference in honor of 80th birthday of Helmut Friedrich**, Mittag-Leffler Institute, June 2025
- **Pacific Northwestern Geometry Seminar**, University British Columbia, May 2025
- **Geometry, Analysis, and Physics in Lorentzian Signature**, Keynote speaker, BIRS Workshop, Granada, May 2025
- **Fifth Duke Mathematics Journal Conference**, Duke University, April 2025
- **Mathematical Aspects of General Relativity**, Oberwolfach Institute, Aug. 2024
- **Plenary Speaker at the 17th Marcel Grossman Meeting**, ICRAnet, Pescara, July 2024
- **Gravitational physics and its mathematical analysis**, Les Diablerets, Switzerland, June 2024
- **Quantum and classical fields interacting with geometry**, Institut Henri Poincare, Paris, April 2024
- **Predictability in General Relativity: celebrating the contributions of Prof. Yvonne Choquet Bruhat**, Raman Research Institute, India (virtual), Feb. 2024
- **Sanya Waves Conference 2024**, Tsinghua Sanya International Mathematics Forum (TSIMF), Jan. 2024
- **Mathematical Relativity: Past, Present, Future**, Vienna, Dec. 2023
- **Workshop on Nonlinear Aspects of General Relativity**, Princeton Gravity Initiative, Oct. 2023
- **9th Conference of the Polish Society on Relativity**, Jagiellonian University (virtual), Sept. 2023
- **Singularity formation in General Relativity and dispersive PDEs**, University of Edinburgh, May 2023
- **Black Hole Initiative Conference**, Harvard University, May 2023
- **Werner Israel Memorial Symposium**, University of Victoria (virtual), May 2023
- **Frontier in Mathematical Science**, Tsinghua-Sanya (hybrid), Dec. 2022
- **2022 International Conference on Geometric Analysis and Hyperbolic Equations**, Guangxi Center for Mathematical Research (virtual), Dec. 2022
- **23rd International Conference on General Relativity and Gravitation**, Institute of Theoretical Physics, Chinese Academy of Sciences, Beijing (virtual), July 2022
- **General Relativity Conference**, Center of Mathematical Sciences and Applications, Harvard University, April 2022
- **Hamiltonian Methods and Asymptotic Dynamics**, ICERM Workshop, Brown University (virtual), Dec. 2021
- **Gravitational Emergence in AdS/CFT Conference**, Banff International Research Station (virtual), Oct. 2021
- **Mathematical aspects of General Relativity**, Oberwolfach Workshop (virtual), Aug. 2021
- **Special session on General Relativity**, Canadian Mathematical Society Summer Meeting (virtual), June 2021
- **Special session on Nonlinear Wave Equations, General Relativity, and Connections to Fluid Dynamics**, AMS Eastern Sectional Meeting (virtual), March 2021
- **Mathematical and Computational Approaches for Solving the Source-Free Einstein Field Equations**, ICERM Workshop, Brown University (virtual), Oct. 2020
- **Mathematical Relativity Conference**, IHP, Paris (cancelled due to COVID-19), June 2020
- **The Geometry and Physics of the Universe Conference**, University of Pittsburgh (cancelled due to COVID-19), March 2020
- **Special session on Wave Phenomena in Fluids and Relativity**, AMS Sectional Meeting, University of Wisconsin in Madison, Sept. 2019
- **Black Hole Initiative Conference**, Harvard University, May 2019
- **Analysis Seminar**, MIT, April 2019
- **Gravity Initiative Inaugural Conference**, Princeton University, March 2019
- **PDE-FRG Conference**, University of Chicago, Oct. 2018
- **Women in PDE Conference**, University of Massachusetts, March 2018

## INVITED SEMINAR TALKS

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- **Analysis & Applied Mathematics Seminar**, Bocconi University, Milan, Dec. 2024
- **Midwest PDE Seminar**, University of Chicago, Sept. 2024
- **CUNY Geometric Analysis Seminar**, City University New York, Feb. 2024
- **London-Oldenburg Relativity Seminar**, University College London/ University of Oldenburg (virtual), July 2023
- **Calderon-Zygmund Analysis Seminar**, University of Chicago (virtual), May 2023
- **Women in Mathematical Relativity**, Leipzig University (virtual), April 2023
- **Gravity group**, Department of Physics, University of Mississippi (virtual), Feb. 2023
- **Geometry, Analysis and Gravitation Seminar**, Queen Mary, University of London (virtual), Feb. 2023
- **Physics Theory Seminar**, Columbia University, Nov. 2022
- **Hyperbolic & Dispersive PDEs Seminar**, Rutgers University, Nov. 2022
- **String/Gravity Theory**, Center for Theoretical Physics, MIT, Oct. 2022
- **PDE and Differential Geometry Seminar**, University of Connecticut (virtual), March 2022
- **General Relativity Colloquium Series**, Center of Mathematical Sciences and Applications, Harvard University (virtual), Nov. 2021
- **PDE Seminar**, Vanderbilt University (virtual), Oct. 2021
- **Analysis and PDE Seminar**, University of California Berkeley (virtual), May 2021
- **Differential Geometry, Mathematical Physics, PDE Seminar**, University of British Columbia (virtual), March 2021
- **Mathematical GR and Hyperbolic PDEs Seminar**, (virtual), Nov. 2020
- **German Austrian Swiss Seminar on Analysis and PDE**, (virtual), Nov. 2020
- **Math-Phys Research Group**, Rutgers University (virtual), Oct. 2020
- **General Relativity Seminar**, Cambridge University (virtual), May 2020
- **Analysis Seminar**, University of Toronto (cancelled due to COVID-19), March 2020
- **Junior Analysis Seminar**, Imperial College, Jan. 2020
- **Gravity Initiative Lunch Talk**, Princeton University, Nov. 2019
- **Mathematical Physics Seminar**, Rutgers University, Nov. 2019
- **PDE Seminar**, Brown University, Nov. 2019
- **Geometric Analysis Seminar**, Rutgers University, Sept. 2019
- **Black Hole Initiative Conference**, Harvard University, May 2019
- **Analysis Seminar**, MIT, April 2019
- **Gravity Initiative Lunch Talk**, Princeton University, Nov. 2018
- **Groups and dynamical systems seminar**, ENS de Lyon, June 2017
- **Mathematical General Relativity Seminar**, Université Pierre et Marie Curie, June 2017

## TEACHING

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### Instructor

Jan. 2018 – present

*Columbia University*

*New York, NY*

- Modern Geometry II - Graduate Core Course (Spring 2025, Spring 2026)
- Differential Geometry (Fall 2025)
- Partial Differential Equations (Spring 2023)
- Ordinary Differential Equations (Fall 2021, Fall 2023)
- Calculus II (Spring 2018, Summer 2018)

### Teaching assistant

Sept. 2016 – May 2019

*Columbia University*

*New York, NY*

- Calculus I, Calculus III, Partial Differential Equations

## MENTORING

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### Undergraduate Mentoring

*Columbia University*

- Senior Thesis Fall 2024: “Boundedness Theorem for Non-Degenerate Energy for a Schwarzschild Black Hole”, Katherine Mekechuk (Barnard College)
- Supervised Reading Fall 2024 “An introduction to Mathematical General Relativity”: Edwina Luo, Owen James Lear
- Supervised Reading Spring 2023 “Physical-space estimates for the wave equation in Kerr-de Sitter”: Tuan Dolmen
- Supervised Reading Fall 2022 “Advanced topics in GR and Geometric Analysis”: Andrew Isaac Navruzayan
- Supervised Reading Fall 2022 “Application of diffusion equation to neurodegenerative diseases modeling”: Maria Stuebner
- Summer 2022 Undergraduate Research “Spherical Harmonics and Black Holes”: Tuan Dolmen, Michael Ahenkora, Lucas Martins Barreto Alves

### Graduate Mentoring

*Columbia University*

- Jingbo Wan (co-mentored with Mu-Tao Wang), 2021-2025
- Ethan Hall, 2024–
- Lucas Melo de Oliveira, 2025–

### Postdoctoral Mentoring

*Columbia University*

- Sam Collingbourne, 2022-2024
- Dawei Shen, 2024–

## ORGANIZED WORKSHOP, CONFERENCES OR SEMINARS

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- **Research group at the Women in Mathematical Physics 3 Workshop**, ICMS, Edinburgh, April 2026
- **Partial Differential Equations, Analysis and Geometry. A conference in honor of Sergiu Klainerman’s 75th birthday**, IHES, Jan. 2026
- **Workshop on Extremal Black Holes**, ICERM, Providence, Jan. 2026
- **Hyperbolic & Dispersive Equations on Curved Geometries Workshop**, Simons Center, April 2025
- **Informal Reading Seminar on General Relativity**, Columbia University, Fall 2024 - present
- **Clay Research Workshop Stability and Instability in General Relativity**, Oxford, Sept. 2022
- **General Relativity & Geometric Analysis Seminar and Analysis Seminar**, Columbia University, Fall 2021 - present
- **Monthly General Relativity & Hyperbolic PDEs Seminar (virtual)**, Fall 2020 - present
- **Princeton Gravity Initiative Lunch**, Spring 2021
- **Junior General Relativity Seminar (virtual)**, Summer 2020 - Summer 2021

## SERVICE (ACTIVITIES THAT PROMOTE DIVERSITY, EQUITY AND INCLUSION ARE MARKED WITH \*)

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### Organizer

*GROW Conference at Columbia University\**

*Fall 2025*

*Diversity Lunch Series at Columbia University (funded by the Diversity Matters Award) \**

*Fall 2022 - Fall 2024*

*ENYGMMa (Empowering New York Gender Minority Mathematicians) Seminar Series \**

*Fall 2022 - Spring 2025*

### Speaker

*Informal talk in Astronomy Department, Columbia University*

*March 2024*

*AWM & Society of Physics Students, Columbia University \**

*Oct. 2023*

*Women in Mathematical Relativity, Leipzig University (virtual) \**

*April 2023*

*ENYGMMa (Empowering New York Gender Minority Mathematicians) Seminar Series \**

*Nov. 2022*

*Michael Zhao Memorial Student Colloquium*

*Nov. 2021, Apr. 2023*

*Columbia Undergraduate Math Society*

*Sept. 2021*

*Women in Science at Columbia Conference \**

*May 2018*

## Mentor

<i>Bridge to the Ph.D. program in STEM *</i>	<i>Spring 2023</i>
<i>Undergraduate Women in Physics at Princeton University *</i>	<i>2019 – 2020</i>
<i>Association Women in Mathematics at Columbia University *</i>	<i>2016 – 2018</i>
<i>Volunteer at Girls' Science Day at Columbia University *</i>	<i>Spring 2015</i>

## Faculty Advisor

<i>Columbia/Barnard Chapter of Association for Women in Mathematics *</i>	<i>Fall 2021 – present</i>
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## Committee Member

<i>PhD Thesis Defense of Jingbo Wan, Alex Xu (Columbia University)</i>	<i>Spring 2025</i>
<i>Frontiers of Science Award in General Relativity</i>	<i>2025</i>
<i>Graduate Admission Committee (Columbia University)</i>	<i>Fall 2022-2024</i>
<i>Admission to Bridge to PhD program (Columbia University) *</i>	<i>Spring 2024</i>
<i>PhD Thesis Defense of Chilin Zhang (Columbia University)</i>	<i>Spring 2024</i>
<i>Graduate Committee (Columbia University)</i>	<i>Spring 2023</i>
<i>PhD Thesis Defense of Mario Apetroaie (University of Toronto)</i>	<i>Spring 2023</i>
<i>Ritt Assistant Professor Hiring Committee (Columbia University)</i>	<i>Fall 2022, Fall 2023</i>
<i>Roundtable on Columbia Science Vision</i>	<i>Fall 2022</i>
<i>Oral Examination of Jingbo Wan, Anthony Coniglio (Columbia University)</i>	<i>Spring 2022</i>

## Panelist

<i>National Science Foundation</i>	<i>Ongoing</i>
<i>ENYGMMA (Empowering New York Gender Minority Mathematicians) Seminar Series at CUNY *</i>	<i>February 2023</i>

## Reviewer

<i>National Science Foundation</i>	<i>Ongoing</i>
<i>Natural Sciences and Engineering Research Council of Canada (NSERC)</i>	<i>2023</i>

## Referee

<i>Annals of PDEs; JDG; Comm. Math. Physics; Ann. Sc. de l'Ecole Norm. Sup.; CQG</i>	<i>Ongoing</i>
<i>Reviews in Mathematical Physics; JFA; Letters in Mathematical Physics; JMPA;</i>	
<i>Notices of the AMS; PAMQ; Journal of Cosmology and Astroparticle Physics; Mathematical Research Letters</i>	

## OUTREACH (ACTIVITIES THAT PROMOTE DIVERSITY, EQUITY AND INCLUSION ARE MARKED WITH \*)

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- Keynote Speaker at May 12: Celebrating Women in Mathematics, “Shedding light on black holes”, University of Rome Tor Vergata, June 2025 \*
- Guest Speaker at MATHCOUNTS Manhattan (nationwide math competition for middle school students), Feb. 2025
- Organizer of the Sonia Kovalevsky Day for middle school students at Columbia University, Oct. 2023, Oct. 2024 \*
- Guest Speaker at “Meet a Scientist: Girls in STEM” at Todholm Public Elementary School in Paisley, Renfrewshire (UK), May 2023 \*
- Guest Speaker at “Meet a Scientist” at Scuola d’Italia High School in New York City, April 2023 \*
- Public Lecture Speaker at the virtual International Congress of Mathematicians (vICM), July 2022
- Guest Speaker at “STEM Power April Conference” at Dominion High School (VA) (virtual), April 2021 \*
- Guest Speaker at “Women in STEM Club” at Davis Senior High School (CA) (virtual), December 2020 \*

## PRESS COVERAGE

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I am a *Columbia Expert for the Medias*, with expertise in Black Holes and General Relativity.

- Interviewed for the article “Sempre più matematiche in Italia, adesso i conti tornano” in *Messaggero*, May 2025
- Consultant for the Italian translation of “The Gravity of Math” by Steve Nadis and S. T. Yau, October 2024
- “Three Columbia Faculty Members Named Sloan Research Fellows” at *Columbia News*, February 2024
- Interviewed for the article “What is the theory of general relativity?” at *Space.com*, May 2023

- Research featured in the article “Here’s a peek into the mathematics of black holes” by Rachel Crowell at *Science News*, March 2023
- Interviewed by *Popular Mechanics*, December 2022
- Research featured in the article “I buchi neri rotanti sono stabili? Intervista con Elena Giorgi” by Roberto Natalini at *MaddMaths! Matematica Divulgazione Didattica*, December 2022
- Research featured in the article “Mathematicians Tied to Princeton Prove Stability of Black Holes” by Julie Bonette at *Princeton Alumni Weekly*, December 2022
- Research featured in the interview “A Researcher Shores Up Einstein’s Theory With Math” by Christopher D. Shea at *Columbia News*, October 2022
- Interviewed by *Süddeutsche Zeitung*, September 2022
- Interviewed by *Epsilon*, August 2022
- Research featured in the article “At Long Last, Mathematical Proof That Black Holes Are Stable” by Steve Nadis at *Quanta Magazine*, August 2022
- Interviewed for the article “Naked Black Holes” by *Sky At Night BBC*, July 2021