Sabrina Gonzalez Pasterski
421 Perimeter Institute Waterloo N2L 2Y5

Education

Harvard Physics PhD (4.00/4.00)	2013-2019
Massachusetts Institute of Technology SB (5.00/5.00)	2010-2013
Illinois Mathematics and Science Academy (4.00/4.00)	2007-2010
Edison Regional Gifted Center, a Chicago Public School (4.00/4.00)	1998-2007

Positions

Deputy Director, Simons Collaboration on Celestial Holography	2023-present
Perimeter Institute (Faculty-"Physics Professor")	2021-present
Founder, Celestial Holography Initiative, Chicago, Illinois	2021
Princeton Center for Theoretical Science (Post-Doc with PI privileges)	2019-2022
D.E. Shaw (Futures Analyst)	Summer '19
The Center for the Fundamental Laws of Nature (PhD candidate)	2014-2019
European Organization for Nuclear Research, Geneva, Switzerland	2012-2013
Boeing Phantom Works, Huntington Beach, California	Summer '11
NASA Kennedy Space Center, Port Canaveral, Florida	Winter '11
Blue Origin LLC, Kent, Washington	Summer '09
Founder, Sabrina Aircraft Manufacturing, Chicago, Illinois	2005

Professional Activities

External Expert for the Chilean National Agency for Research and Development	2021-present
External Expert for the Icelandic Research Fund	2021-present
Referee for Physical Review Letters	2020-present
Referee for SciPost	2020-present
Referee for Physical Review D	2020-present
Referee for The European Physical Journal C	2020-present
Referee for Physics Letters B	2018-present
Referee for the Journal of High Energy Physics	2016-present

Licenses

Ontario Motorcycle License	2022
New Jersey Motorcycle License	2019
MIT Pirate's License (proficient in Sabre, Sailing, Pistol & Archery)	2012
Illinois Motorcycle License	2009
FAA Authorized Experimental Aircraft Test Pilot	2009
U.S. Solo Flight Permit	2009
FAA Light Sport Aircraft Manufacturer (one million views)	2008
Canadian Solo Flight Certificate	2007
Industry Canada Radio Operators Certificate	2005
Transport Canada Medical Certificate	2004

Academic Awards

Sam B. Treiman Fellow	2021
IMSA Alumni Distinguished Leadership Award	2019
MIT Physics 'Rising Star'	2016
European Physical Society Prize (Higgs boson collaboration)	2013
MIT Physics Orloff Scholarship Award (highest graduating GPA)	2013
Harvard GSAS James Mills Peirce Fellow	2013
Lindau-Nobel Young Researcher	2012
SU-MIT Scholar, Istanbul, Turkey	2012
MIT Freshman Entrepreneurship Award (inaugural award)	2011
Illinois All-State Academic Team 'Top of the World' Scholar	2010

Departmental Service

Organizer, Celestial Holography School 2024 (Perimeter)	2024
Member, Strings Planning Committee	2023-2026
Founder, Founders & Physicists (US/Canada)	2017/2023
CHI Europe School (Northeastern & Perimeter)	2023
Lead Organizer, Strings 2023 (Perimeter)	2023
Organizer, Celestial Holography 2023	2023
Student Resources committee (Perimeter)	2022-2024
Speakers committee (Perimeter)	2022-2023
Organizer, Celestial Holography Conference & School 2022 (Perimeter & Princeton)	2022
Speakers Coordinator, EDI Initiative (Princeton)	2021-2022
Founder, Celestial Holography Conference & School Series (PCTS)	2021
Leader, Speakers Working Group, EDI Initiative (Princeton)	2020-2021
Co-Organizer, HET Seminar Series (PCTS & IAS)	2020-2021
Producer, Physics First Documentary (Harvard & MIT)	2010

Teaching

CHI Europe Lectures (uWarsaw)	2023
PSI Essay and Defence Supervisor (Perimeter)	2022-2023
Holography 2022 Lectures (Asia Pacific Center for Theoretical Physics)	2022
Principal Investigator Celestial Holography Initiative (Perimeter)	2021-present
Program in Applied & Computational Mathematics Certificate Adviser (Princeton)	2021-2022
Celestial Amplitudes Lectures @ Amplitudes 2021 (Niels Bohr Institute)	2021
Senior Thesis Adviser (Princeton)	2020-2021
Quantum Field Theory Guest Lectures (Princeton)	2020
Senior Thesis Summer Research Adviser (Princeton)	2020
Diverse Perspectives in Physics Lecture (Stanford)	2020
Junior Paper Adviser (Princeton)	2019-2020
Quantum Field Theory II Guest Lectures & Teaching Fellow (Harvard)	2018

Funding Sources (USD)

Simons Foundation ($7,995,000 shared)	2023-2027
Perimeter Institute Strings 2023 funding ($184,000)	Summer '23
Perimeter Institute CHI funding ($837,000)	2022-2028
Brown University ($1,100,000 declined)	2022-2026
Perimeter Institute salary ($900,000)	2022-2028
P&G ($100,000)	Summer '20
Princeton Center for Theoretical Science ($250,000)	2019-2022
D.E. Shaw ($60,000)	Summer '19
Hertz Foundation ($250,000)	2015-2019
National Science Foundation ($150,000)	2015-2019
Harvard Smith Fellowship ($50,000)	2014-2015
Harvard James Mills Peirce Fellowship ($18,000)	2013-2014
Harvard Purcell Fellowship ($50,000)	2013-2014
MIT Fellowship ($50,000 declined)	2013-2014

Publications

Celestial CFT Spectrum	2024
Conditional Disclosure of Secrets with Quantum Resources	2024
Radiation in Holography	2024
Multiparticle Contributions to the Celestial OPE	2024
A Chapter on Celestial Holography (solicited contribution)	2023
Equating Extrapolate Dictionaries for Massless Scattering (JHEP)	2023
Multicollinear Singularities in Celestial CFT (JHEP)	2023
Detector Operators for Celestial Symmetries (JHEP)	2023
Celestial Amplitudes in an Ambidextrous Basis (JHEP)	2022

Revisiting the Shadow Stress Tensor in Celestial CFT (JHEP) 2022
Celestial Conformal Colliders (JHEP) 2022
Quantum Gravity, String Theory, and Black Holes (solicited contribution to Snowmass 2022) 2022
Celestial Recursion (JHEP) 2022
A Comment on Loop Corrections to the Celestial Stress Tensor (JHEP) 2022
Celestial Geometry (JHEP) 2022
Goldilocks Modes and the Three Scattering Bases (JHEP) 2022
A Shorter Path to Celestial Currents (JHEP) 2022
Mapping SYK to the Sky (JHEP) 2022
Chaos in Celestial CFT (JHEP) 2022
Celestial Holography (solicited contribution to Snowmass 2022) 2021
Conformally Soft Fermions (JHEP) 2021
Lectures on Celestial Amplitudes (EPJC) 2021
Revisiting the Conformally Soft Sector with Celestial Diamonds (JHEP) 2021
Celestial Diamonds (JHEP) 2021
Shifting Spin on the Celestial Sphere (PRD) 2020
HPS meets AMPS: How Soft Hair Dissolves the Firewall (JHEP) 2020
Asymptotic Symmetries and Celestial CFT (JHEP) 2020
Flops and Fibral Geometry of E7-models 2020
The Suspended Pinch Point and SU(2)×U(1) Gauge Theories 2019
Implications of Superrotations (Physics Reports) 2019
Uplifting AdS3/CFT2 to Flat Space Holography (JHEP) 2019
A Note on the Subleading Soft Graviton (JHEP) 2019
D4-flops of the E7-model 2018
Gluon Amplitudes as 2d Conformal Correlators (PRD) 2017
A Conformal Basis for Flat Space Amplitudes (PRD) 2017
Flat Space Amplitudes and Conformal Symmetry of the Celestial Sphere (PRD) 2016
Asymptotic Symmetries & Electromagnetic Memory (JHEP) 2015
Higher D Supertranslations and Weinberg's Soft Graviton Theorem (AMSA) 2015
New Gravitational Memories (JHEP) 2015
Low's Subleading Soft Theorem as a Symmetry of QED (PRL Editors' Suggestion) 2014
Semiclassical Virasoro Symmetry of the Quantum Gravity S-Matrix (JHEP) 2014

Invited Talks

Radiation in Holography II (Schrödinger Institute) 2024
Radiation in Holography (Harvard CMSA) 2024
The Celestial Hologram: From Stargazing to Quantum Gravity and Back (PPPL colloquium) 2024
Multiparticle States in Celestial CFT (Universidad Adolfo Ibáñez Santiago) 2024
Celestial Holography from Bottom-up to Top-down (Western Hemisphere Colloquium) 2023
Inversions, Shadows, and Extrapolate Dictionaries in CCFT (Oxford Maths) 2023
Celestial Colliders (Oxford Physics) 2023
Simons Celestial Holography Kickoff (Harvard) 2023
Piecing Together a Flat Hologram (Perimeter) 2023
From Celestial CFTs to Conformal Colliders and Back (uToronto) 2023
The IR Triangle (Perimeter Celestial Salon Series) 2023
Extrapolate Dictionaries in Celestial CFT and Conformal Collider Physics (DESY) 2023
CHI: Where Amplitudes, Bootstrap & Quantum Gravity Collide (Harvard colloquium) 2023
Reorganizing Scattering via Symmetries (uTexas Austin) 2023
Celestial Conformal Colliders + (McGill) 2023
The Celestial Hologram (Heidelberg colloquium) 2022
Quantum Gravity (Perimeter) 2022
Workshop on Celestial Amplitudes and Flat Space Holography (Corfu) 2022
Amplitudes 2022 (Prague) 2022
Bohr-100: Current Themes in Theoretical Physics (Copenhagen) 2022
General Relativity XXIII (Beijing) 2022
SUSY 2022 (Ioannina) 2022

Mining Celestial Symmetries (Harvard) 2022
Loop Corrections to the Celestial Stress Tensor (King's College London) 2022
Revisiting the Flat Space Hologram (ICTS Bengaluru) 2022
Celestial Geometry meets Celestial Currents (UCLA) 2022
A Shorter Path to Celestial Currents (McGill) 2022
Goldilocks Modes and the Three Scattering Bases (UC Davis) 2022
Chaos in Celestial CFT (Perimeter) 2022
Sabrina's Celestial Almanac (Princeton) 2022
SHEP Friday Seminar (Southampton) 2021
An Invitation to Celestial Amplitudes (DAMTP colloquium) 2021
Harnessing Symmetry in a Celestial Basis (SLAC) 2021
Fun with Celestial Dressings: Harbingers of Chaos, Heralds of Symmetry (Edinburgh) 2021
Celestial Pyramids (Corfu) 2021
Diamonds, Dressings, Shockwaves & Chaos (Harvard) 2021
Applying Lessons from Holography and CFT to Scattering (DPF 2021) 2021
Celestial Amplitudes Program Review Talk (Strings 2021) 2021
Building Celestial Holography (Brown colloquium) 2021
Progress in Celestial Amplitudes (OleMiss) 2021
Fun with Celestial Amplitudes (IAS) 2021
Crossing the Horizon: Using Soft Hair to Evade a Firewall (Joint Belgian Seminar) 2021
Celestial Diamonds (OIST) 2021
Shifting Spin on the Celestial Sphere (CCNY) 2021
HPS meets AMPS: How Soft Hair Dissolves the Firewall (UCSB) 2021
Celestial Holography (Princeton) 2021
Prospects in Celestial Holography (Perimeter colloquium) 2021
HPS meets AMPS (Harvard) 2021
Using Soft Hair to Dissolve the Firewall (Joint Israeli High Energy Theory Seminar) 2021
Celestial Primaries and Their Memories (Queen Mary London) 2020
A Primer on Celestial Holography (UCSC colloquium) 2020
Asymptotic Symmetries and Celestial CFT (uKentucky) 2020
Constraints on Scattering from the Infrared (SISSA) 2020
Implications of Superrotations II (uWarsaw) 2019
4D Scattering as 2D Correlators (Princeton) 2019
Implications of Superrotations (Harvard) 2019
A Conformal Basis for Scattering Amplitudes (Northeastern) 2018
Superrotations and Flat Space Holography (Perimeter) 2018
Asymptotic Symmetries & Soft Physics: Superrotations to Spin Memory (LSE/ND) 2018
Superrotations and Celestial Correlators (Brandeis) 2018
A Soft Start to a Conformal Basis (Harvard) 2018
A Conformal Basis for Flat Space Amplitudes (Rutgers) 2017
Flat Space Amplitudes in a Highest-Weight Basis (MIT) 2017
Memories, Symmetries and Soft Theorems (LSU colloquium) 2017
The Guiding Triangle (Brown) 2016
A Triangle of Traits: Constraining Scattering Through IR Effects (MIT) 2016
Memory Effects (Isaac Newton Institute) 2016
Asymptotic Symmetries @ Null Infinity (Isaac Newton Institute) (¼ million views) 2016
Dr. Strominger or: How He Learned to Stop Worrying & Love 'the Triangle' (Harvard) 2015
Asymptotic Virasoro Symmetries and Gravitational Memory (MIT) 2015
New Gravitational Memories (Harvard String Family) (2014 spin memory 'thought experiment') 2015

Skills

spotting elegance within the chaos, design, fabrication, programming, aircraft building 1998-present

Public Talks

January 24th @6 (the Cambridge Union)	2024
Quantum Gravity Landscape (Perimeter)	2023
Simons Spotlight (Hunter College)	2023
Zapytaj fizyka (uWarsaw)	2023
Next Generation of Women in Physics (Stanford)	2023
Chicago, Aircraft and Strings (Saddle Brook middle + high school)	2023
The Day of Discovery Conference (Perimeter)	2022
Perspektywy: Women in Tech Summit Keynote (Warsaw)	2019
THE World Academic Summit (Zurich)	2019
Czech Republic Innovation Week Keynote (Prague)	2019
SoHo House Immigration Panel (Manhattan)	2019
New York Public Schools STEM Outreach Q&A (Bronx)	2018
European Organization for Nuclear Research (Geneva)	2018
Smithsonian Long Conversation (Washington)	2017
MiSK Foundation (Riyadh)	2017
International Monetary Fund Annual Meeting (Washington)	2017
Forbes Discover Stage (Boston)	2017
Loey Awards Royal Keynote (Amsterdam)	2017
Gorky Park Spring Polytech Festival Keynote (Moscow)	2017
Silicon Valley Comic Con Headliner (San Jose)	2017
Center for Democracy in the Americas (Havana)	2017
Harvard's Morning Prayer (Harvard Yard) (the morning after the presidential election)	2016
Hertz Foundation (Chicago)	2015
Forbes Outreach (Philadelphia)	2015
WorldQuant (Fajardo)	2015

Honors

WIRED: The Incredible Women Making Strides in Science	2023
Latino Leaders: the most relevant in science	2023
Chairman Strings 2023	2022
Massachusetts Institute of Technology: Kendall Square Genius	2021
Institute for Advanced Study: periodic visiting scholar	2021
Brown University targeted faculty offer: Assistant Professor of Physics	2021
BBC News 10 Latinos under 30 who Inspire America (inaugural list)	2020
Kimmel Center 'Seat at the Table' Honoree	2020
Gazeta Wyborcza 23 Women who can Change the World	2020
Her World Indonesia Six Recent Figures of Women Empowerment	2019
Paris Match 50 Icons of Yesterday and Today	2019
Marie Claire Italia 14 under 30, The Generation Changing the World	2019
TIME Inc. InStyle Badass Woman	2018
Helena Group	2018
Discovery Canada's International Women's Day Honoree	2018
Forbes 30 Under 30 – Judge	2018
Genius: 100 Visions of the Future	2018
Grand Central Terminal Ceiling Projection	2017
Annenberg Foundation CUBA IS Exposition	2017
Diplomatic Reception, US Ambassador's Residence, Moscow	2017
Forbes 30 Under 30 - All Star	2017
Young Women's Honors Education/Genius Award	2017
The Atlantic's Roundtable Dinner	2016
Steven P. Jobs Trust's Ozy 'Rising Star' (one million shares)	2016
Life+Style 'Remarkable Woman' (cover story)	2015
Forbes 30 under 30	2015
Scientific American 30 under 30	2012
Illinois Aviation Trades Association Industry Achievement Award	2010