

Boris Post

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Date of birth: 10 October 1996 | INSPIRE-HEP

Research Profile

Theoretical physicist working on quantum gravity, AdS/CFT, quantum chaos, low-dimensional gravity, wormholes and averaging, 3d quantum gravity with $\Lambda < 0$ and $\Lambda > 0$. Current research is carried out in the Mathematical Physics group at the University of Oxford.

Academic Appointments

Postdoctoral Research Associate

2025–present

Mathematical Institute, University of Oxford

- Member of the Mathematical Physics group of Prof. Mark Mezei.
- Research areas: quantum gravity, AdS/CFT, and quantum chaos.

Education

PhD in Theoretical Physics, Cum Laude¹

2021–2025

Institute for Theoretical Physics, University of Amsterdam

- Supervisor: Prof. Jan de Boer.
- Co-supervisor: Prof. Erik Verlinde.
- Thesis: *Quantum Chaos and Topology: New Perspectives on Low-Dimensional Quantum Gravity*.

MSc in Theoretical Physics, Cum Laude (138 EC)

2019–2021

University of Amsterdam

- GPA: 9.1/10.
- Research project thesis (60 EC): *Ensemble Averaging in JT Gravity*.

Composition, Preparatory Year

2018–2019

Conservatory of Amsterdam

- Studied with Willem Jeths.

Double BSc in Physics and Mathematics (260 EC)

2015–2018

University of Amsterdam

- Graduated with an Honours degree.
- Thesis (30 EC): *Toric Geometry in the Gauged Linear Sigma Model*.

BSc in Physics and Astronomy (first year)

2014–2015

University College London

VWO, Preparatory Scientific Education

2008–2014

Berlage Lyceum Amsterdam

- Graduated Summa Cum Laude; GPA: 9.1/10.
- Bilingual education in English and Dutch.
- Leiden Advanced University Program in Physics.

¹Approximately 5% of PhD theses in the Netherlands receive this distinction.

- Diploma awarded with the highest mark.

Publications

1. J. Chandra and **B. Post**, “Elastic stiffness of three-dimensional black holes and wormholes from Liouville line defects,” 2026. arXiv:2607.16155 [hep-th].
2. A. Belin, S. Collier, L. Eberhardt, D. Liska, and **B. Post**, “A universal sum over topologies in 3D gravity,” accepted in *SciPost Physics*, 2026. arXiv:2601.07906 [hep-th].
3. J. de Boer, J. Kames-King, and **B. Post**, “Surgery and statistics in 3D gravity,” accepted in *Journal of High Energy Physics*, 2025. arXiv:2506.04151 [hep-th].
4. **B. Post** and I. Tsiaras, “A non-rational Verlinde formula from Virasoro TQFT,” *Journal of High Energy Physics* **04** (2025) 015. arXiv:2411.07285 [hep-th].
5. J. de Boer, D. Liska, and **B. Post**, “Multiboundary wormholes and OPE statistics,” *Journal of High Energy Physics* **10** (2024) 207. arXiv:2405.13111 [hep-th].
6. J. de Boer, D. Liska, **B. Post**, and M. Sasieta, “A principle of maximum ignorance for semiclassical gravity,” *Journal of High Energy Physics* **02** (2024) 003. arXiv:2311.08132 [hep-th].
7. A. Altland, **B. Post**, J. Sonner, J. van der Heijden, and E. Verlinde, “Quantum chaos in 2D gravity,” *SciPost Physics* **15** (2023) 064. arXiv:2204.07583 [hep-th].
8. **B. Post**, J. van der Heijden, and E. Verlinde, “A universe field theory for JT gravity,” *Journal of High Energy Physics* **05** (2022) 118. arXiv:2201.08859 [hep-th].

Research Visits

Three-week visit to Prof. Eric Perlmutter and his group, IPhT, Paris-Saclay.	March 2026
Four-week visit to Prof. Eric Perlmutter and his group, IPhT, Paris-Saclay, and IHES, Paris-Orsay.	Jan.–Feb. 2024
One-week visit to Prof. Julian Sonner and his group, University of Geneva, Switzerland.	August 2023

Invited Talks and Seminars

“Deforming black holes, wormholes and line defects” <i>University of Torino</i>	May 2026
“A Universal Sum over Topologies in 3D Gravity” <i>ICTP, Trieste</i>	May 2026
“A Universal Sum over Topologies in 3D Gravity” <i>IPhT, Paris-Saclay</i>	March 2026
“Looking under the Hood of Virasoro TQFT” <i>University of Oxford</i>	February 2026
“A Universal Sum over Topologies in 3D Gravity” <i>University of British Columbia, online</i>	January 2026
“Systematizing the Sum over Topologies in Quantum Gravity” <i>Imperial College London</i>	November 2025

“Surgery and Statistics in 3D Gravity” <i>University of Southampton</i>	July 2025
“A Non-Rational Verlinde Formula from Virasoro TQFT” <i>University of Oxford</i>	March 2025
“A Non-Rational Verlinde Formula from Virasoro TQFT” <i>Ghent University</i>	November 2024
“Multiboundary Wormholes and OPE Statistics” <i>IPhT, Paris-Saclay</i>	February 2024
“A Principle of Maximum Ignorance for Semiclassical Gravity” <i>Weizmann Institute, online</i>	December 2023
“A Principle of Maximum Ignorance for Semiclassical Gravity” <i>University of Amsterdam</i>	December 2023

Invited Workshops and Conferences

Pathways to Quantum Black Holes , GGI programme (two weeks), Galileo Galilei Institute, Florence.	May 2026
Random Geometry , Simons Center programme (four weeks), Simons Center for Geometry and Physics, Stony Brook.	April 2026
Workshop on Holography, Gauge Theories and Black Holes , University of Southampton.	July 2025
HoloUK , holography meeting, University of Oxford.	March 2025
Statistical Mechanics, Algebra, and Geometry , SwissMAP Research Station, Le Diablerets.	February 2025
Amsterdam String Workshop , poster presentation and Gong Show talk.	July 2022, June 2024, August 2026
Strings Conference, CERN, Geneva.	June 2024
Speakable and Unspeakable in Quantum Gravity , Institut Pascal, Paris-Saclay (two weeks).	May 2024
New Connections: Chaos, Field Theory and Quantum Gravity , SwissMAP Research Station, Le Diablerets.	January 2023
Strings Conference, University of Vienna.	July 2022
Strings, Cosmology, and Gravity , Student Conference, University of Amsterdam; poster presentation and Gong Show talk.	May 2022

Teaching Experience

Teaching Assistant <i>University of Amsterdam</i>	2019–2025
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- Contributed to course development for *Quantum Physics 2 for Mathematical Physicists*.
- Led tutorial sessions for undergraduate and graduate courses:

Master’s Courses, University of Amsterdam, 2021–2024

- General Relativity (6 EC).
- Quantum Field Theory 3 (3 EC), taught twice.
- String Theory (6 EC), taught twice.

Bachelor's Courses, University of Amsterdam, 2019–2023

- Quantum Physics 2 for Mathematical Physicists (6 EC).
- Advanced Quantum Physics (6 EC).
- Atomic Physics (6 EC), taught three times.
- Electrodynamics (6 EC), taught twice.
- Waves and Oscillations (6 EC).

Academic Service

Organising committee for the 2027 two-week conference *Black Hole Bridges: Connecting Chaos, Topology and Number Theory*, Institut Pascal, Paris. 2025–present

Organising committee for the 2027 three-day workshop *HoloUK: Solvable Models of Quantum Chaos*, Wadham College, Oxford. 2026–present

Referee for the *Journal of High Energy Physics*. 2023–present

Outreach

Author of ten online popular-science articles for The Quantum Universe, link [here](#). 2022–2024

Doctoral Schools

Dutch Research School of Theoretical Physics, Callantsoog and Dalfsen. May 2022 and May 2023

Solvay Institute Doctoral School, ENS Paris, ULB and VUB Brussels, University of Amsterdam, and University of Geneva. Sep. 2021–Jan. 2022

Skills

Languages	Dutch (native), English (fluent), French (good), Yiddish (basic).
Programming	Python, Mathematica, MATLAB.
Music	Renaissance lute, vihuela, guitar, harpsichord, choir, and live electronics.

Composition and Performance

Commissioned Compositions

- Music for *Hemelratten*, De Parade Theatre Festival (2026).
- Music for *La Strada*, De Parade Theatre Festival (2025).
- *Die Silbe Schmerz* for choir and electronics (20 minutes), Boeuf Majeur (2019).
- *Entremectz* for large choir (6 minutes), Studentenkoor Amsterdam (2019).

Live sets (Festivals and venues)

Digital Tsunami Festival (Lithuania), Cafe OTO (London), Berghain (Berlin), Phorma Festival (Moscow), Griessmuehle (Berlin), L'International (Paris), Bussey Building (London), The Waiting Room (London), Astron (Athens), L'Embobineuse (Marseille), Mjut (Leipzig), Muziekgebouw (Amsterdam), Concertgebouw (Amsterdam), Garage Noord (Amsterdam), and OCCII (Amsterdam).

Last updated: July 21, 2026