

Curriculum Vitae

Christopher Couzens

Mathematical Institute
University of Oxford
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[Inspire profile](#)
[Google Scholar](#)

Positions

Oct 2022- Departmental Lecturer in Mathematical Physics,
Present **Department of Mathematics, University of Oxford**

Oct 2025- Stipendiary Lecturer,
Present **Wadham College, University of Oxford**

Oct 2021- Postdoctoral Fellow,
Sep 2022 **Department of Physics, Kyung Hee University**

Oct 2018- Postdoctoral Fellow,
Sep 2021 **Institute of Theoretical physics, Utrecht University**

Education

2015-2018 PhD - [King's College London, UK](#)
Supervisor: Dario Martelli
Thesis: Holographic F-theory

2014-2015 MSc in Theoretical Physics - [King's College London, UK](#)
Supervisor: Dario Martelli
Thesis: Supersymmetric solutions of supergravity and G-structure techniques
Distinction: Best in cohort

2011-2014 BSc in Mathematics - [King's College London, UK](#)
First: Best in Cohort

Academic Scholarships and Prizes

- 2017** [Young Investigator Training Program Scholarship](#)
Scholarship award to attend conference and school at GGI with a month long visit to an Italian Research institute, (Milano-Bicocca).
- 2015** **MSc Theoretical Physics prize:** Awarded to the best MSc student in theoretical physics.
MSc Theoretical Physics best project prize: Awarded to best MSc thesis in theoretical physics.
- 2014** **Drew Medal:** Best undergraduate performance in mathematics.
Jelf Medal: King's College award for most distinguished student in the College for both academic and sporting prowess. Most prestigious award to an undergraduate.
MSc continuation grant: Awarded to excellent students to continue studying for an MSc at KCL (£5000).
- 2013** **John Tyrrel Award:** Best second year undergraduate results in mathematics.
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Teaching

Lecturer

- 2026** **Quantum field theory in curved spacetime**
Role: *Lecturer.*
Level: *Master and 4th-year undergraduate course.*
University: *University of Oxford.*
- 2026,**
2025,
2024,
2023 **General Relativity 2**
Role: *Lecturer.*
Level: *Master and 4th-year undergraduate course.*
University: *University of Oxford.*
- 2025,**
2024,
2023,
2022 **General Relativity 1**
Role: *Lecturer.*
Level: *Master and 4th-year undergraduate course.*
University: *University of Oxford.*

College Tutor

- 2025-**
Present **Calculus, Geometry, Multi-Variable Calculus, Dynamics**
Role: *College Tutor.*
Level: *1st Year Undergraduate.*
University: *University of Oxford.*

**2025-
Present** **Numerical Analysis, Integral transforms**
Role: *College Tutor.*
Level: *2nd Year Undergraduate.*
University: *University of Oxford.*

Tutor

**2026,
2025,
2024,
2023** **General Relativity 2**
Role: *Tutor.*
Level: *Master and 4th-year undergraduate course.*
University: *University of Oxford.*

**2025,
2024,
2023,
2022** **General Relativity 1**
Role: *Tutor.*
Level: *Master and 4th-year undergraduate course.*
University: *University of Oxford.*

2020 **Field theory in particle physics**
Role: *Tutor.*
Level: *Master course.*
University: *Utrecht University.*

2018 **Advanced Quantum Field Theory**
Role: *Tutor.*
Level: *MSc course.*
University: *King's College London.*

2018 **Complex Analysis and Partial Differential Equations**
Role: *Tutor.*
Level: *2nd year undergraduate course.*
University: *King's College London.*

2017 **Foundations of Mathematical Physics**
Role: *Tutor.*
Level: *MSc course.*
University: *King's College London.*

**2016,
2015** **Quantum Field Theory**
Role: *Tutor.*
Level: *MSc course.*
University: *King's College London.*

- 2015** **Calculus 2**
 Role: *Tutor.*
 Level: *1st Year Undergraduate course.*
 University: *King's College London.*
- 2014** **All 2nd Year Courses**
 Role: *Tutor.*
 Level: *2nd year undergraduate courses.*
 University: *King's College London.*

Supervision

PhD Students:

- 2024-** **PhD co-supervisor for Tabea Sieper**
Present Thesis: *Equivariant Localization in supergravity*
 University: *University of Oxford.*
- 2019-** **PhD co-supervisor for Dr Koen Stemerdink**
2022 Thesis: *Black holes from branes: various string theoretical constructions*
 University: *Utrecht University.*

Masters Students:

- 2025-** **MSc thesis supervisor for 5 different students with 4 different**
2026 **projects**
 University: *University of Oxford.*
- 2024-** **MSc thesis supervisor for Florian Gaar**
2025 Thesis: *Equivariant localisation in supergravity and 3d SCFTs*
 University: *University of Oxford.*
- 2024-** **MSc thesis supervisor for George Hughes**
2025 Thesis: *Applications of equivariant localisation in supergravity*
 University: *University of Oxford.*
- 2023-** **MSc thesis supervisor for Peter Petkov**
2024 Thesis: *4d $\mathcal{N} = 2$ SCFTs and their holographic duals*
 University: *University of Oxford.*
- 2023-** **MSc thesis supervisor for Sid Kumar**
2024 Thesis: *Consistent truncations of GK geometries*
 University: *University of Oxford.*
- 2022-** **MSc thesis supervisor for Pratheek Kumar Kishore**
2023 Thesis: *Classification of Supergravity Solutions Admitting AdS Factors*
 University: *University of Oxford.*

2020-2021 MSc thesis supervisor for **Oscar Eigenraam**
Thesis: *T-duality and Generalized Complex Geometry*
University: *Utrecht University*.

Undergraduate Students:

June 2023- Supervision of **UNIQ+** student

August 2023 Thesis: *Black hole metrics and Machine learning*

UNIQ+ is a research program for underprivileged undergraduate students to acquire research experience.

University: *University of Oxford*.

Professional Services

Referee:

Journal of High Energy Physics; Letters in Mathematical Physics; Nuclear Physics, Section B.

PhD Thesis Examiner:

For Anik Rudra at the University of Witwatersrand

Committees:

2025 Oct-Present Equality, Diversity and Inclusion Committee, University of Oxford

2025 Mar-Present Early Career Researcher Forum, Maths representative, University of Oxford

2024 Mar-Present MSc admissions committee, University of Oxford

2023 Sep-Present Early Career Researcher committee, University of Oxford.
Chair from 2025-onwards.

2023 Sep-2025 Sep Departmental Teaching committee, University of Oxford.

Organisational activities

Conference Organisation:

- Strings and Geometry 2020 (postponed due to Covid 19)

Seminars and Journal clubs

2022 Oct-2024 Sep Oxford String Journal Club.

2021 Sep-2022 Sep Kyung Hee String Journal Club.

2019 Sep-2021 Sep Utrecht String Theory Seminars.

2018 Oct-2019 Sep Utrecht String Theory Journal Club.

2015 Oct-2018 Sep King's College London PhD Journal Club.

Outreach

2026, 2025 **Mathematical Institute's Online Research Projects with Africa (Miorpa)**
Miorpa is a virtual mentorship programme that supports pre-PhD students who are based in sub-Saharan Africa to perform research projects. I am supervising one student for this programme.

2026, 2025, 2024 **Oxford Maths Festival volunteer**
Oxford Maths Festival is a public event for the local community encouraging engagement of all ages in mathematics.

2024 **Mathematics Institute outreach**
Wrote an article explaining my recent research along with a minute elevator pitch aimed at non-experts.

2025, 2023 **School science talks**
Gave talks on special and general relativity/ Mathematical Biology to sixth form students (final school year) followed by a discussion session for students interested in studying maths and physics at university.

2023 **Supervision of UNIQ+ intern**
UNIQ+ is a program for giving underprivileged undergraduate students research experience.

Talks, Seminars and Presentations

2026 Jun **Benasque workshop** : *Localising Supergravity*

2026 Jan **University of Oviedo** : *Equivariant localization and punctures*

- 2025 Jun Oxford Seminar Series : *Localising Romans Supergravity*
- 2025 Mar Queen Mary Seminar Series : *Localising Romans Supergravity*
- 2025 Feb Warsaw String Seminars : *Localising Romans Supergravity*
- 2025 Jan 7th Mandelstam Theoretical Physics School and Workshop 2025 : *Localising Romans Supergravity*
- 2024 Apr SNU string seminars: *On the Class S origin of the spindle solutions*
- 2024 Feb Quiver Meeting: *The holographic duals of Argyres–Douglas theories*
- 2023 Sep Belgian Hep-th Seminars: The holographic duals of Argyres–Douglas theories: SU, SO and USp
- 2023 Sep Supergravity 2023: *The holographic duals of Argyres–Douglas theories: SU, SO and USp*
- 2023 Sep Trinity College Dublin Seminar series: *The holographic duals of Argyres–Douglas theories: SU, SO and USp*
- 2023 Apr Eurostrings: *The holographic duals of Argyres–Douglas theories: SU, SO and USp*
- 2023 Mar Swansea seminar series: *The holographic duals of Argyres–Douglas theories*
- 2022 Nov Oxford seminar series: *The holographic duals of Argyres–Douglas theories*
- 2022 Aug KAIST seminar series: *Black holes and microstate counting*
- 2022 Apr KIAS seminar series: *Discs, spindles and some SCFT duals*
- 2022 Feb IGFAE Santiago de Compostela seminar: *Discs, spindles and new twists*
- 2022 Jan **Advances in Theoretical Physics 2022**: *Discs, spindles and defect horizons*
- 2021 Oct CQeST Seminar Series: *Discs and spindles*
- 2021 Sep KAIST-SNU Seminar Series: *Discs and spindles*
- 2021 Sep KIAS String Seminars: *Black string near-horizons, 2d quiver SCFTs and fractional branes*
- 2021 Jun Kyung Hee Journal Club: *AdS₃ solutions, black string chains and $\mathcal{N} = (0, 4)$ Quivers*

- 2021 Jun **Seminar Series on String Phenomenology (Harvard)** : *Anomalies of (0,4) SCFTs from wrapped D3 branes in F-theory*
- 2020 Dec **Mini-Workshop: Recent Advances in QFT and Geometry** : *Rotating Black hole near-horizons in M-theory*
- 2020 Mar **National Symposium of Theoretical High Energy Physics** : *Extremal Problems in Black Hole Physics*
- 2019 Sep **Geometry and Strings 2019 (Gong and Poster Presentation)** : *Black Holes and (0,4) SCFTs from Type IIB on K3*
- 2019 Jul **Strings 2019 (Poster Presentation)** : *A geometric dual of c-extremization and \mathcal{I} -extremization*
- 2019 May **Holography, Generalized Geometry and Duality** : *A geometric dual of c-extremization*
- 2019 Apr **Scanning New Horizons** : *Black holes and (0,4) SCFTs from K3*
- 2019 Jan **Iberian Strings 2019** : *A geometric dual of c-extremization*
- 2018 Oct **Utrecht Seminar Series** : *A geometric dual of c-extremization*
- 2018 Sep **Amsterdam seminar series** : *A geometric dual of c-extremization*
- 2018 Apr **Strings, Geometry and Black Holes, (Gong and Poster Presentation)** : *F-theory and AdS/CFT*
- 2017 Nov **SISSA seminar series** : *F-theory and Holography in the context of AdS₃/CFT₂*
- 2017 Nov **Padova seminar series** : *F-theory and Holography in the context of AdS₃/CFT₂*
- 2017 Oct **Swansea University seminar series** : *F-theory and AdS₃/CFT₂*
- 2017 Oct **Queen Mary University seminar series** : *F-theory and AdS₃/CFT₂*
- 2017 Oct **City University London seminar series** : *F-theory and AdS₃/CFT₂*
- 2017 Jul **String Geometry, Supersymmetric Theories and Dualities** : *Supersymmetric AdS₅ solutions of type IIB without D3-branes*
- 2017 Apr **Milano Bicocca seminar series** : *F-theory and AdS₃/CFT₂*
- 2016 Feb **Gatis Training Program DESY** : *Supersymmetric AdS₅ solutions of type IIB without D3-branes*
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Publications

All papers can be downloaded as pdf files, along with citation data, from my [Inspire profile](#). Note that authors are ordered alphabetically in high energy physics.

- [1] P. Benetti Genolini, C. Couzens and A. Lüscher, *Probing black holes with equivariant localization*, [2604.26786](#).
- [2] C. Couzens, A. Lüscher and J. Sparks, *IIB an equivariantly localized puncture*, [2601.07598](#).
- [3] C. Couzens, A. Lüscher and J. Sparks, *Localizing punctures in M-theory*, [2511.03397](#).
- [4] C. Couzens, C. M. Gregory, D. Muniz, T. Sieper and J. Sparks, *Localizing Romans supergravity*, *JHEP* **09** (2025) 103, [[2504.07168](#)].
- [5] C. Couzens and A. Lüscher, *A geometric dual of F-maximization in massive type IIA*, *JHEP* **08** (2024) 218, [[2406.15547](#)].
- [6] P. Bomans and C. Couzens, *On the class \mathcal{S} origin of spindle solutions*, *JHEP* **10** (2024) 036, [[2404.08083](#)].
- [7] C. Couzens, M. J. Kang, C. Lawrie and Y. Lee, *Holographic duals of Higgsed $\mathcal{D}_p^b(BCD)$* , [2312.12503](#).
- [8] P. Bomans, C. Couzens, Y. Lee and S. Ning, *Symmetry breaking and consistent truncations from M5-branes wrapping a disc*, *JHEP* **01** (2024) 088, [[2308.08616](#)].
- [9] C. Couzens, H. Kim, N. Kim, Y. Lee and M. Suh, *D4-branes wrapped on four-dimensional orbifolds through consistent truncation*, *JHEP* **02** (2023) 025, [[2210.15695](#)].
- [10] C. Couzens, N. T. Macpherson and A. Passias, *A plethora of Type IIA embeddings for $d = 5$ minimal supergravity*, *JHEP* **01** (2023) 047, [[2209.15540](#)].
- [11] C. Couzens and K. Stemerdink, *Universal spindles: D2's on Σ and M5's on $\Sigma \times \mathbb{H}^3$* , [2207.06449](#).
- [12] C. Couzens, H. Kim, N. Kim and Y. Lee, *Holographic duals of M5-branes on an irregularly punctured sphere*, *JHEP* **07** (2022) 102, [[2204.13537](#)].
- [13] C. Couzens, N. T. Macpherson and A. Passias, *On Type IIA AdS_3 solutions and massive GK geometries*, *JHEP* **08** (2022) 095, [[2203.09532](#)].

- [14] C. Couzens, *A tale of (M)2 twists*, *JHEP* **03** (2022) 078, [[2112.04462](#)].
- [15] C. Couzens, K. Stemerdink and D. van de Heisteeg, *M2-branes on discs and multi-charged spindles*, *JHEP* **04** (2022) 107, [[2110.00571](#)].
- [16] C. Couzens, Y. Lozano, N. Petri and S. Vandoren, *$N=(0,4)$ black string chains*, *Phys. Rev. D* **105** (2022) 086015, [[2109.10413](#)].
- [17] C. Couzens, N. T. Macpherson and A. Passias, *$\mathcal{N} = (2, 2)$ AdS_3 from D3-branes wrapped on Riemann surfaces*, *JHEP* **02** (2022) 189, [[2107.13562](#)].
- [18] C. Couzens, E. Marcus, K. Stemerdink and D. van de Heisteeg, *The near-horizon geometry of supersymmetric rotating AdS_4 black holes in M-theory*, *JHEP* **05** (2021) 194, [[2011.07071](#)].
- [19] C. Couzens, H. het Lam, K. Mayer and S. Vandoren, *Anomalies of $(0,4)$ SCFTs from F-theory*, *JHEP* **08** (2020) 060, [[2006.07380](#)].
- [20] C. Couzens, H. het Lam and K. Mayer, *Twisted $\mathcal{N} = 1$ SCFTs and their AdS_3 duals*, *JHEP* **03** (2020) 032, [[1912.07605](#)].
- [21] C. Couzens, *$\mathcal{N} = (0, 2)$ AdS_3 solutions of type IIB and F-theory with generic fluxes*, *JHEP* **04** (2021) 038, [[1911.04439](#)].
- [22] C. Couzens, H. het Lam, K. Mayer and S. Vandoren, *Black Holes and $(0,4)$ SCFTs from Type IIB on $K3$* , *JHEP* **08** (2019) 043, [[1904.05361](#)].
- [23] C. Couzens, J. P. Gauntlett, D. Martelli and J. Sparks, *A geometric dual of c-extremization*, *JHEP* **01** (2019) 212, [[1810.11026](#)].
- [24] C. Couzens, D. Martelli and S. Schafer-Nameki, *F-theory and AdS_3/CFT_2 $(2, 0)$* , *JHEP* **06** (2018) 008, [[1712.07631](#)].
- [25] C. Couzens, C. Lawrie, D. Martelli, S. Schafer-Nameki and J.-M. Wong, *F-theory and AdS_3/CFT_2* , *JHEP* **08** (2017) 043, [[1705.04679](#)].
- [26] C. Couzens, *Supersymmetric AdS_5 solutions of type IIB supergravity without D3 branes*, *JHEP* **01** (2017) 041, [[1609.05039](#)].