

Gustav Conradie

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Research Interests

Numerical analysis, data-driven modelling of dynamical systems and spectral theory

Education

- October 2024 – present: University of Cambridge, Churchill College, UK. PhD, Mathematics. Supervised by Matthew Colbrook and Nicolas Boullé.
- October 2023 – June 2024: University of Cambridge, Churchill College, UK. MMath, Mathematics. Grade: Distinction (ranked 15/294).
- October 2020 – June 2023: University of Cambridge, Churchill College, UK. BA (Hons), Mathematics. Grade: 1st every year.

Papers

3. **G. Conradie**, M. J. Colbrook, D. Fortunato, *Computing Spectral Properties of Differential Operators on Surfaces*, 2026, submitted.
2. **G. Conradie**, N. Boullé, JC Loiseau, S. L. Brunton, M. J. Colbrook, *Trustworthy Koopman Operator Learning: Invariance Diagnostics and Error Bounds*, 2026, submitted.
1. N. Boullé, M. J. Colbrook, **G. Conradie**, *Convergent Methods for Koopman Operators on Reproducing Kernel Hilbert Spaces*, 2025, submitted.

Conference Talks

- Annual Meeting of the International Association of Applied Mathematics and Mechanics, Stuttgart, March 2026.
- European Conference on Numerical Mathematics and Advanced Applications, Heidelberg, September 2025.
- Workshop: Linear Operators in AI, Munich, July 2025.
- Biennial Numerical Analysis Conference, Strathclyde, June 2025.
- Spectral Theory Workshop, Bristol, September 2023.

Teaching

- Supervisor for second year Numerical Analysis and Methods courses.
- Marking of STEP Examinations papers (Cambridge maths entrance exam).

Refereeing Service

Philosophical Transactions A