Kurt Stoeckl

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Education:

The University of Melbourne

2021– (Expected 2024)	PhD.	Supervisor: Marcy Robertson Thesis Title: Homotopy Props
2018–2020	Master of Science, with Distinction.	Supervisor: Richard Brak Thesis Title: Combinatorial Applications of Partial Peano Algebras
2014–2017	Bachelor of Science.	Majors: Mathematics and Statistics Computer Science

Research Interests:

Homotopy theory, (∞-)operadic structures, Koszul duality, Groebner bases and combinatorics.

Scholarships:

2021–2024	Melbourne Research Scholarship (Stipend and Fee Offset).
2018–2020	Masters - Mathematics and Statistics School Scholarship (3 times in period).

Preprints:

- *Cellular Diagonals of Permutahedra*, joint with Bérénice Delcroix-Oger, Guillaume Laplante-Anfossi and Vincent Pilaud, arXiv:2308.12119
- *Koszul Operads Governing Props and Wheeled Props*, arXiv:2308.08718

Recent Talks:

July 2023	**Annual Meeting of the Algebraic Combinatorics Subgroup of the Groupement de Recherche, Information Mathematique**, *Relating Diagonals of the Permutahedra*, Paris, France.
June 2023	**Homotopy Theory in Trondheim**, *Homotopy Wheeled Props*, Trondheim, Norway.
December 2022	**Annual Meeting of the Australian Mathematical Society**, *A Koszul Operad Governing Wheeled Props*, Sydney, Australia.
September 2022	**Categories and Companions Symposium**, *A Koszul Operad Governing Wheeled Props*, Matrix–The Mathematics Institute, Australia.
May 2022	**University of Melbourne Topology Seminar**, *Quadratic Presentations of Operads Governing Operadic Structures*, Australia.
February 2022	**Mini-series (Three Seminars) on Groebner Bases for Operads**, Melbourne, Australia.
December 2021	**Australian Kittens–ECR Conference**, *Groebner Bases for Operads Cannot be Generalised to Wheeled Structures*, Melbourne, Australia.

Other Research Experience:

2017-2018	CSIRO Summer Research Scholarship: A 12 week undergraduate summer research project on the topic of Bayesian networks, in particular naive Bayes models and hidden Markov models.