

Danai Deligeorgaki

KTH, Department of Mathematics,
Stockholm, Sweden

danaide@kth.se

EDUCATION

- KTH Royal Institute of Technology:** 08/20-
PhD in Combinatorics and Artificial Intelligence
Supervisor: Liam Solus
- Imperial College London:** 09/18-10/19
MSc in Pure Mathematics (70.73, “Distinction”)
MSc project in Algebraic Graph Theory with Prof. Martin Liebeck
Onassis Scholar: £13.100 awarded on academic merit
- Aristotle University of Thessaloniki:** 09/13-03/18
BSc in Mathematics (8.83, “Excellent”)
Thesis in Algebraic Statistics with Prof. Hara Charalambous ([link](#))
Project in Formal Language Theory with Prof. George Rahonis
- 4th General Lykeio of Alexandroupolis:** 09/10-06/13
Graduation (19.2, “Excellent”)

PUBLICATIONS

- M. Beck, D. Deligeorgaki, M. Hlavacek, J. Valencia-Porras, *Inequalities for f^* -vectors of Lattice Polytopes*, arXiv:2210.12271 (submitted, 2022)
- M. Beck, D. Deligeorgaki, M. Hlavacek, J. Valencia-Porras, *Extended abstract: Inequalities for f^* -vectors of Lattice Polytopes*, to appear in the Proceedings of FPSAC (2023)
- D. Deligeorgaki, A. Markham, P. Misra, L. Solus, *Combinatorial and algebraic perspectives on the marginal independence structure of Bayesian networks*, arXiv:2210.00822 (submitted, 2022)
- A. Markham, D. Deligeorgaki, P. Misra, L. Solus, *A Transformational Characterization of Unconditionally Equivalent Bayesian Networks*, 11th International Conference on Probabilistic Graphical Models (PGM 2022)
- D. Deligeorgaki, *Smallest graphs with given automorphism groups*, Journal of Algebraic Combinatorics (open access), DOI: 10.1007/s10801-022-01125-2 (2022)

REFeree SERVICE

- Article review for *Order* 2023

TEACHING

- Teaching Assistant:** 2021-2022
Teaching assistant for “Differential Equations” at KTH 2020-2021
- Voluntary tutoring:** 2016-2017
Teaching weekly exercises for the undergraduate course ‘Algebraic Structures II’ at AUTH
- Private tutor:** 2013-2017
Occasionally teaching Mathematics to students of IT-related subjects or Economics

INSTITUTIONAL ACTIVITIES

- SCI Newsletter (10% occupation):** 05/21-
Newsletter editor for the school of Engineering Sciences (SCI) at KTH

PhD representative (9% occupation):

SCI PhD representative for the program "PhD in Pure Mathematics" at KTH

01/21-01/22

ORGANIZATIONAL ACTIVITIES

- 4th Graduate Student Meeting on Applied Algebra and Combinatorics** (co-organizer):
Three-day conference for graduate students and postdocs in Algebra, Combinatorics and their applications for about 100 participants around Europe (upcoming) 04/23
- SCI School Science Communication workshops** (organizer):
Artesc, a Dutch company specializing on bringing skills from the arts to communication, offered two workshops in Stockholm for the SCI school PhD students 11/21

CONFERENCE TALKS

- SIAM Conference on Applied Algebraic Geometry (AG23) (Netherlands):**
"On the marginal independence structure of DAG models" (upcoming) 07/23
- Geometry meets Combinatorics in Bielefeld (Germany):**
"Inequalities for f^* -vectors of lattice polytopes" 09/22
- 28th Nordic Congress of Mathematicians (NCM) (Finland):**
"Unconditional Equivalence for DAG models" 08/22
- 2nd Conference for Greek Mathematicians (Greece):**
"Gorenstein decomposable models" 07/22
- Nordic Combinatorial Conference (NORCOM) 2022 (Norway):**
"Unconditional Equivalence for DAG models" 06/22
- Algebraic Statistics 2022 (Hawaii, USA):**
"Unconditional Equivalence for DAG models" 05/22

POSTER PRESENTATIONS

- Formal Power Series and Algebraic Combinatorics (FPSAC) 2023 (California, USA):**
"Inequalities for f^* -vectors of lattice polytopes" (upcoming) 07/23
- CIMPA summer school "Mathematical Methods in Data Analysis" 2022 (Albania):**
"Gorenstein decomposable models" 07/22
- Combinatorial, Computational, and Applied Algebraic Geometry (CCAAGS) 2022 (Seattle, USA):**
"Gorenstein decomposable models" 06/22

PARTICIPATION

- Graduate Research Workshop in Combinatorics (GRWC) 2023 (Wyoming, USA) 07-08/23
- 89th Séminaire Lotharingien de Combinatoire and Brenti Fest (Italy) 03/23
- 11th Probabilistic Graphical Models (PGM) 2022 (Spain) 10/22
- Encuentro Colombiano de Combinatoria (ECCO) 2022 (Colombia) 06/22
- Graduate Student Combinatorics Conference (GSCC) 2021 (online) 04/21
- (Polytop)ics conference (online) 04/21
- Research Encounters in Algebraic and Combinatorial Topics (REACT) workshop (online) 02-03/21
- AlCoVE: an Algebraic Combinatorics Virtual Expedition (online) 2020-2023

SEMINAR TALKS

- Discrete Geometry graduate student seminar at FU Berlin (Germany):**
"The geometry of discrete decomposable models" 07/22
- WASP Kickoff 2022 (virtual Cluster talk):**
"Discrete decomposable models" 01/22