

Daniël KROES
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EDUCATION

- 2016 – present **PhD student in Mathematics**, University of California San Diego
Dissertation advisors: Fan Chung Graham and Brendon Rhoades
Research focus in combinatorics
- 2014 – 2016 **MSc Mathematical Sciences**, Utrecht University
Thesis advisor: Gunther Cornelissen, graduated *Cum Laude*
- 2011 – 2014 **BSc Mathematics, BSc Physics and Astronomy**, Utrecht University
Thesis advisor: Frits Beukers, graduated *Cum Laude*

PUBLICATIONS

- 2018 Generalized coinvariant algebras for $G(r, 1, n)$ in the Stanley-Reisner setting, arXiv preprint

CONFERENCES ATTENDED

- 2018 **Graduate Student Combinatorics Conference (GSCC)**, University of Texas at Dallas
Algebra, Geometry and Combinatorics Day (ALGECOM), University of Michigan
- 2017 **Graduate Student Combinatorics Conference**, University of Kansas, Lawrence

GRANTS AND AWARDS

- 2018 Summer funding, **Combinatorics Foundation** (\$4000)
- 2016 **UCSD James B. Ax Graduate Fellowship** (\$12000)
- 2015 **First Prize**, International Mathematics Competition
- 2012 **Young Talent Encouragement Award**, Royal Holland Society of Sciences and Humanities (€500)
- 2010, 2011 **Silver medal (2011), Honourable mention (2010)**, International Mathematical Olympiad
- 2010, 2011 **Silver medal**, Benelux Mathematical Olympiad

TEACHING EXPERIENCE

- 2016 – present **Teaching Assistant**, University of California San Diego
Applied Algebra, Applied Linear Algebra, Calculus for Science & Engineering, Combinatorics, Discrete Math & Graph Theory, Mathematical Reasoning
- 2012 – 2015 **Teaching Assistant**, Utrecht University
Analysis, Functional Analysis, Number Theory, Mechanics, Quantum Mechanics
- 2013 – 2016 **Assistant Teacher**, SSL Leiden
Teacher at an institute offering three day courses for high school students preparing them for their final exam in Mathematics
- 2010 – 2014 **Private Tutoring**

PROFESSIONAL EXPERIENCE

- 2016 **Organizing committee Benelux Mathematical Olympiad 2016**, secretary
- 2015 **Organizing committee Dutch Interuniversity Math Olympiad**, problem selection
- 2014 – 2015 **Financial committee A-Eskwadraat**
I was responsible for checking the financial administration of the treasurer of the study association A-Eskwadraat, with a budget over €100,000
- 2014 **Organizing committee PLANCKS symposium**
Opening symposium of the first edition of the international physics competition PLANCKS; lectures by Gerard 't Hooft, Immanuel Bloch and Stephen Hawking and an audience of 1500 people

One of four nominees for the 2013-2014 "Utrecht University exceptional extracurricular or social achievements student award"

2012

Introduction committee A-Eskwadraat, treasurer

I was responsible for organizing a one and a half week introduction for first year students in Mathematics, Physics, Computer Science and Information Science, involving over 400 first year students and over 100 supporting members

MISCELLANEOUS

2012 – 2016

Trainer Dutch Mathematical Olympiad

Preparing and leading monthly training sessions for 30 talented high school students, correcting weekly problem sets and coaching them during contests

(2016)

Deputy leader at the *European Girls' Mathematical Olympiad*

(2014, 2015)

Team leader at the *Benelux Mathematical Olympiad*

2012 – present

Problem proposer for various mathematical olympiads, including

IMO shortlist 2014, problem A4

European Girls' Mathematical Olympiad 2014, problem 6

International Mathematics Competition for University Students 2018, problem 3

Baltic Way 2015, problem 15

Benelux Mathematical Olympiad 2016, problem 1

Benelux Mathematical Olympiad 2013, problem 3