

Search ScienceDirect

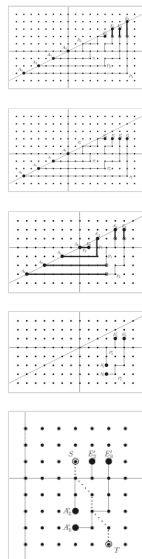
Advanced search

Abstract

Keywords

- 1. Introduction
 - 2. Preliminaries
 - 3. Determinants of Catalan numbers
 - 4. Determinants of generalised Catal...
 - 5. Determinants of generalised Catal...
- References

Figures and tables



ADVERTISEMENT

Journal of Statistical Planning and Inference

Volume 140, Issue 8, August 2010, Pages 2260–2270

Lattice Path Combinatorics and Applications

Sixth International Conference on Lattice Path Combinatorics and Applications



Determinants of (generalised) Catalan numbers

C. Krattenthaler¹

Available online 21 January 2010

Choose an option to locate/access this article:

Check if you have access through your login credentials or your institution

[Check access](#)

[Purchase \\$35.95](#)

[Get Full Text Elsewhere](#)

doi:10.1016/j.jspi.2010.01.022

[Get rights and content](#)

Abstract

We show that recent determinant evaluations involving Catalan numbers and generalisations thereof have most convenient explanations by combining the Lindström–Gessel–Viennot theorem on non-intersecting lattice paths with a simple determinant lemma from Krattenthaler (1990). This approach leads also naturally to extensions and generalisations.

Keywords

Hankel determinants; Generalised Catalan numbers; Fibonacci numbers; Dodgson condensation; Non-intersecting lattice paths

¹ Research partially supported by the Austrian Science Foundation FWF, Grant S9607-N13, in the framework of the National Research Network "Analytic Combinatorics and Probabilistic Number Theory".

Copyright © 2010 Elsevier B.V. All rights reserved.

This article belongs to a special issue

[Lattice Path Combinatorics and Applications](#)

Edited By Sri Gopal Mohanty and Anant Godbole

Other articles from this special issue

[Preface](#)

Sri Gopal Mohanty [more](#)

[Combinatorial trigonometry with Chebyshev ...](#)

Arthur T. Benjamin, Larry Ericksen, Pallavi J... [more](#)

[Combinatorially composing Chebyshev poly...](#)

Arthur T. Benjamin, Daniel Walton [more](#)

[View more articles »](#)

Recommended articles



Citin

Related book content
