

# TAYLOR DANIELS

## PERSONAL

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OFFICE: Mathematical Sciences Building,  
rm. 813, 150 N University St, West Lafayette IN, USA  
EMAIL: daniel84 at purdue dot edu  
PERSONAL WEBPAGE: <http://math.purdue.edu/~daniel84/>

## PUBLICATIONS

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- T. Daniels, *Periodic vanishings of the Legendre-17 signed partition numbers*, in preparation.
- T. Daniels, *Biasymptotics of the Möbius- and Liouville-signed partition numbers*, submitted; arXiv:2310.10617; 38 pp.
- T. Daniels, *Vanishing coefficients in two  $q$ -series related to Legendre-signed partitions*, Res. Number Theory **10** (2024), Paper No. 81, 12 pp.. doi:10.1007/s40993-024-00566-x
- T. Daniels, *The Asymptotics of Some Signed Partition Numbers*, Doctoral Thesis, August 2024. doi:10.25394/PGS.26364385.v1
- T. Daniels, *Legendre-signed partition numbers*, J. Math. Anal. Appl. **542** (2025), no. 1., Paper No. 128717, 40 pp.. doi:10.1016/j.jmaa.2024.128717
- T. Daniels, *Bounds on the Möbius-signed partition numbers*, Ramanujan J. **65** (2024), 81-123. doi:10.1007/s11139-024-00885-8
- T. Daniels and D. Smith-Tone, *Differential Properties of the HFE Cryptosystem*, Post-Quantum cryptography, 2014, 59–75

## TALKS

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- “Legendre-signed partition numbers and their vanishings”, AMS Special Session on  $q$ -Series and Partitions (JMM 2025), Seattle WA; Jan. 2025
- “The asymptotics of some signed partition numbers”, Purdue Analytic Number Theory and Harmonic Analysis Seminar, W. Lafayette IN; Apr. 2024
- “Signed partition numbers”, UT Tyler Number Theory and Combinatorics Seminar, Tyler TX; Mar. 2024
- “Some results on signed partition numbers”, COmbinatorial Number Theory And Connected Topics (CONTACT – III); [online conference] Mar. 2024
- “Signed partition numbers”, MTU Seminar in Partition Theory,  $q$ -Series and Related Topics, Houghton MI; Mar. 2024
- “Legendre-signed partition numbers”, Southern Regional Number Theory Conference 2024, Baton Rouge LA; Mar. 2024
- “The asymptotics of some signed partition numbers”, UIUC Number Theory Seminar, Urbana IL; Nov. 2022
- “Möbius-signed partition numbers”, *Geometry, Arithmetic, and Groups, in honor of Alan Reid’s 60th birthday*. Austin TX; June 2022
- “Differential Properties of the HFE Cryptosystem”, *Post-Quantum Cryptography – 6th Intl. Workshop, PQCrypto 2014*, Univ. of Waterloo, Waterloo ON, Canada; Sept. 2014

## ADDITIONAL CONFERENCES ATTENDED

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*CNTA 2024*, Fields Institute, Toronto, Ontario, Canada; June 2024  
*The Legacy of Ramanujan: Celebrating the 85th birthdays of George Andrews and Bruce Berndt*, Penn State Univ., State College PA; June 2024  
*Combinatorics Number Theory and Certain Topics – CONTACT III*, online conference; Mar. 2024  
*Southern Regional Number Theory Conference*, Louisiana State Univ., Baton Rouge LA; Mar. 2024  
*MAGNTS 2023*, Univ. of Michigan, Ann Arbor MI; Oct. 2023  
*CANT 2023 – Combinatorial and Additive Number Theory*, CUNY, New York NY; May 2023  
*AMS Spring Central Virtual Sectional Meeting*, Purdue Univ., West Lafayette IN; Mar. 2022  
*6th Annual Grad. Stud. Conf. in Geometry, Topology, and Algebra*, Temple Univ., Philadelphia PA; May 2021  
*Maurice Auslander Intl. Conf.*, Woods Hole MA; Apr. 2018

## EDUCATION

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Ph.D., Mathematics, Purdue University, West Lafayette IN, 2024.

Advisors: Trevor Wooley and David (Ben) McReynolds

M.S., Mathematics, Univ. of Louisville, Louisville KY, 2015.

B.S., Mathematics, Univ. of Louisville, Louisville KY, 2014.

## EMPLOYMENT

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Aug. 2024 –	Visiting Assistant Professor, Purdue Univ. Mathematics
2015 – 2024	Graduate Teaching/Research Assistant, Purdue Univ. Mathematics In Fall 2023 and Summer 2024 I was supported in part as a Research Assistant by funding provided by Trevor Wooley and Ben McReynolds, respectively.
2015	Instructor, STARTALK Summer Program, Louisville KY [Accelerated summer course in Mandarin Chinese for students grade 6-8.]
2012 – 2015	Teaching Assistant, Univ. of Louisville Mathematics

## AWARDS

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2021 – 2022	Miscellaneous Scholarship, Purdue Univ. Mathematics
Fall 2020	Excellence in Teaching Award, Purdue Univ. Mathematics
2009 – 2014	Trustee’s Scholarship, Univ. of Louisville
2013 – 2014	Bickel Scholarship, Univ. of Louisville Mathematics
2012 – 2013	Pedigo Scholarship, Univ. of Louisville Mathematics
2009 – 2012	Humana Scholarship, Humana Inc., Louisville KY

## ORGANIZATIONS

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2014 – 2015	Vice President, Math Club, Univ. of Louisville
2012 – 2014	Math Club, Univ. of Louisville
2009 – 2012	Chinese Learner’s Society, Univ. of Louisville
2010 – 2011	President, Chinese Learner’s Society, Univ. of Louisville

## LETTERS OF REFERENCE

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Prof. Bruce Berndt, UIUC Mathematics, berndt at illinois dot edu

Prof. David B. McReynolds (PhD co-advisor), Purdue Univ. Mathematics, dmcreyno at purdue dot edu

Dr. Dominic Naughton\*, Purdue Univ. Mathematics, dnaughto at purdue dot edu

Prof. Trevor Wooley FRS (PhD co-advisor), Purdue Univ. Mathematics, twooley at purdue dot edu

Prof. Alexandru Zaharescu, UIUC Mathematics, zaharesc at illinois dot edu

\*To provide a letter concerning teaching.