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# THOTSAPORN AEK THANATIPANONDA

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Bangkok,  
Thailand

Telephone: 081-668-9415  
Email: thotsaporn@gmail.com

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## Work Experience

- **Lecturer Position** from Science Division, Mahidol University, International College, Nakornpathom, Thailand
  - April 2014 - present
- **Postdoctoral Position** from Research Institute for Symbolic Computation (RISC), Hagenberg, Austria
  - December 2010 - March 2012
- **Visiting Assistant Professor** from Department of Mathematics and Computer Science, Dickinson College, Carlisle, PA
  - September 2008 - August 2009

## Education

- **Ph.D. in Mathematics** from Rutgers University, Piscataway, NJ
  - Advisor: Professor Doron Zeilberger
  - September 2002 - October 2008
- **M.A. in Industrial Engineering** from University of Wisconsin, Madison, Madison, WI
  - Advisor: Leyuan Shi
  - Sept 1999 - May 2002
- **B.Sc. in Industrial Engineering** from Chulalongkorn University, Bangkok, Thailand
  - Advisor: Professor Sirichan Thongprasert
  - June 1994 - March 1998

## Research Interests

- Primary: Experimental Mathematics, Enumerative Combinatorics
- Secondary: Combinatorial Game Theory, Ramsey Theory, Partition Theory

## Publications

- *Rook Endgame Problems in  $m$  by  $n$  Chess*, Advances in Applied Mathematics, Volume 61, Page 19-24 (October 2014).
- *Beyond Zudilin's Conjectured  $q$ -analog of Schmidt's problem*, Journal of Difference Equations and Applications, Volume 20(9), 2014, Page 1344-1349.
- *A Simple Proof of Schmidt's Conjecture*, Journal of Difference Equations and Applications 20(2014), Page 413-415.
- *Advanced Computer Algebra for Determinants*, with Christoph Koutschan, Annals of Combinatorics: Volume 17, Issue3(2013), Page 509-523.

- *Harmonic interpolation based on Radon projections along the sides of regular polygons*, DK Computational Mathematics. Technical report no.2011-12, Johannes Kepler University Linz, Austria, 2011.
- *Further Hopping with Toads and Frogs*, Electronic Journal of Combinatorics, R14 of Volume 18(1), 2011.
- *On the Monochromatic Schur Triples Type Problem*, Electronic Journal of Combinatorics, R14 of Volume 16(1), 2009.
- *A Symbolic Finite-State Approach For Automated Proving of Theorems in Combinatorial Game Theory*, with Doron Zeilberger, Journal of Difference Equations and Applications, 15(2009), 111-118.
- *How to beat Capablanca*, Advances in Applied Mathematics, Volume 40, Number 2, February 2008, 226-240.
- *Permutation Statistics*, Mathematics Magazine, April 2004, 136-140.

### Teaching Experience

- **Complex Analysis:** T1 2014 (Instructor)
- **Number Theory:** Fall 2008 (Instructor)
- **Elementary Statistics:** Fall 2008, Spring 2009, Year 2014, Year 2015 (Instructor)
- **Graph Theory:** Summer 2008 (Instructor)
- **Numerical Analysis:** Summer 2007 (Instructor)
- **Linear Optimization:** Summer 2006 (Instructor)
- **Calculus II:** Summer 2004, Spring 2009 (Instructor)
- **Differential Equation:** Fall 2006, Spring 2008 (Teaching Assistant)
- **Pre Calculus ,Calculus I, Calculus II or Calculus III:** Fall 2003, Spring 2004, Fall 2004, Spring 2005 ,Fall 2005, Spring 2006, Spring 2007, Fall 2007 (Teaching Assistant)

### Invited Talks

- *Finite State Method for Combinatorial Games*, Colloquia, Queens College, March 2008
- *Finite State Method for Combinatorial Games*, Workshop on Combinatorial Game Theory, BIRS Alberta, Canada, January 2008
- *Computer-Generated Conjectures(!) and Proofs(!!) in Combinatorial Game Theory (II)*, AMS Special Session on Applications of Computer Algebra in Enumerative and Algebraic Combinatorics, Joint Mathematics Meetings San Diego, January 2008

### Seminar Talks

- *Probabilistic Method*, Applied Math Seminar, Mahidol University, International College, Nakornpathom, Thailand, July 2014
- *Schmidt's Conjecture*, Combinatorics Seminar, RISC, Linz, Austria, March 2012
- *Evaluating a Determinant*, Combinatorics Seminar, RISC, Linz, Austria, June 2011
- *A Symbolic Finite State Approach to Automated Theorem Proving*, Combinatorics Seminar, RISC, Linz, Austria, December 2010

- *When Harry met Sally ...* , Graduate Student Combinatorics Seminar, Rutgers University, October 2007
- *Some fun with the minimum number of same color Schur triples on  $[1,n]$* , Graduate Student Combinatorics Seminar, Rutgers University, October 2007
- *Experimental Math and Ramsey Theory* , Introduction to Mathematics at Rutgers (IMR), Rutgers University, September 2007
- *Dancing with Toads and Frogs*, Experimental Mathematics seminar, Rutgers University, January 2007
- *On playing games*, Graduate Pizza seminar, Rutgers University, December 2006
- *Ramsey Theory*, Graduate Pizza seminar, Rutgers University, January 2006

#### Award

- Dean's Award for Excellence in Research from the Graduate School, Rutgers University, 2008
- TA Teaching Excellence Awards, Fall 2006