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Education

Ph.D. Mathematics, University of South Carolina at Columbia, *expected* Spring 2013.

Comprehensive Study

Galois Theory and Lattice Theory (under George McNulty)

Graph Theory I and II (under Joshua Cooper)

Point-Set Topology I and II (under Peter Nyikos)

M.S. Mathematics, Southern Illinois University at Carbondale, 2008.

Thesis: Partitioning the Labeled Spanning Trees of a Graph into Isomorphism Classes

Committee: Thomas Porter (advisor), Lane Clark, and Norman Carver.

B.S. Mathematics, Southern Illinois University at Carbondale, 2007.

Honors: *Summa Cum Laude*, Outstanding Senior.

B.S. Computer Science, Southern Illinois University at Carbondale, 2007.

Honors: *Summa Cum Laude*, Outstanding Senior.

Publications

Connected Balanced Subgraphs in Random Regular Multigraphs Under the Configuration Model (with L. Lu and L.A. Székely), (2012+).

Quest for Negative Dependency Graphs (with L. Lu and L.A. Székely), (2012+).

Applications of Chromatic Polynomials Involving Stirling Numbers (with T.D. Porter), *Journal of Combinatorial Mathematics and Combinatorial Computing* **70** (2009), 57-64.

Some Applications of Spanning Trees in $K_{s,t}$ (with L.H. Clark and T.D. Porter), *Journal of Combinatorial Mathematics and Combinatorial Computing* **62** (2007), 139-146.

Citations

Partitioning the Labeled Spanning Trees of an Arbitrary Graph into Isomorphism Classes, *M.S. thesis, Southern Illinois University at Carbondale* (2008) cited by:

J. van den Boomen, Non-isomorphic spanning trees of graphs, *M.S. thesis, Radboud University Nijmegen* (2009).

A Survey of Zero-Knowledge Proofs with Applications to Cryptography, *Unpublished manuscript* (2007) cited by:

A.M. Jaafar and A. Samsudin, Visual Zero-Knowledge Proof of Identity Scheme: A New Approach, *Second International Conference on Computer Research and Development* (2010), 205–212.

J.M. Kizza, Fiege-Fiat-Shamir ZKP Scheme Revisited, *Journal of Computing and ICT Research* Vol. 4, No. 1 (2010), 9–19.

C. Qi, A Zero-Knowledge Proof of Digital Signature Scheme Based on the Elliptic Curve Cryptosystem, *Third International Symposium on Intelligent Information Technology Application* (2009), 612–615.

C. Qi and S. Cui, Providing End-to-End Guaranteed QoS in A-Serv Architecture, *International Symposium on Computer Network and Multimedia Technology* (2009), 1–4.

Referee Work

1. *Discrete Applied Mathematics* (2011).
2. *Discrete Mathematics* (with L.A. Székely) (2011).
3. *European Journal of Mathematics* (with L.A. Székely) (2010).

Teaching

University of South Carolina at Columbia

Finite Mathematics, Spring 2012.

Mathematics for Elementary Educators I, Fall 2011.

Calculus I, Spring 2011.

Mathematics for Elementary Educators II, Fall 2010.

Mathematics for Elementary Educators I, Spring 2010.

Precalculus, Fall 2009.

College Mathematics, Summer 2009.

Intensive College Mathematics, Spring 2009.

College Mathematics, Fall 2008.

Southern Illinois University at Carbondale

College Algebra, Spring 2008.

Intermediate Algebra, Fall 2007.

North Carolina Governor's School East

Graph Theory, Summer 2011.

Presentations

Beyond Infinity (The Uncountability of the Real Numbers), North Carolina Governor's School East, Summer 2011.

Beyond Infinity (The Uncountability of the Real Numbers), University of South Carolina, Spring 2011.

Beyond Infinity (The Uncountability of the Real Numbers), North Carolina Governor's School West, Summer 2010.

Honors & Awards*Fellowships*

USC Doctoral Fellowship, University of South Carolina at Columbia, 2008–2011.

SIUC Master's Fellowship, Southern Illinois University at Carbondale, 2007–2008.

SIUC Chancellor's Scholarship, Southern Illinois University at Carbondale, 2003–2007.

Grant Support

National Science Foundation (DMS-1000475 supported by Lázló Székely), Research assistantship in extremal and probabilistic combinatorics, Summer 2011.

National Science Foundation (DMS-1000475 supported by Lázló Székely), Research assistantship in phylogenetics, Summer 2010.

Awards

Barry M. Goldwater Scholarship, Southern Illinois University at Carbondale, 2006.

NSF Graduate Research Fellowship Honorable Mention, Southern Illinois University at Carbondale, 2007.

Carl G. Townsend Memorial Scholarship in Mathematics, Southern Illinois University at Carbondale, 2005, 2006, 2007.

Outstanding Senior in Computer Science, Southern Illinois University at Carbondale, 2007.

References

Research

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Teaching

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