MATTHEW J. KUKLA

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EDUCATION

University of Maryland awarded May 2022
Mathematics, BSc. *College Park, Maryland, USA*

PROFESSIONAL EXPERIENCE

BlueHalo Labs June 2022 - present
Research Engineer *Rockville, Maryland, USA*

· Researcher in graph theory, formal logic, applied mathematics.

- Focused on applications to automated reasoning, scientific computing

The Math Citadel March 2019 - present
Researcher

· Conducting research in fuzzy algebra, measure theory
· Developing scientific computing packages
· Contributor to technical articles, lectures, and notes

Patton Electronics Summer 2016
Software Engineering Intern *Gaithersburg, Maryland, USA*

· Developed a Linux-based operating system for VDSL routers

- Wrote, patched hardware-specific kernel modules

SKILLS

Programming Languages	C, OCaml, Python, Fortran, Julia, Prolog, Java, MATLAB
Operating Systems	Linux, UNIX (BSD and Solaris), MS-DOS
Tools, Libraries	LaTeX, shell scripting, sed/AWK, Git, SciPy, NumPy
Web	HTML, CSS, Gopher, OpenSearch

RESEARCH PAPERS AND PUBLICATIONS

Logical Limit Laws for Layered Permutations and Related Structures
Authors: Samuel Braunfeld, Matthew Kukla (2021)
*Published, Enumerative Combinatorics and Applications. **2** no. 4.*

Colored Convex Linear Orders and Logical Limit Laws
Authors: Matthew Kukla (2021)
Preprint.

Rings of Typed Ordered Fuzzy Numbers
Authors: Matthew Kukla, Rachel Traylor (2020)
Preprint, arXiv:2010.07764.

TALKS AND PRESENTATIONS

Logical Limit Laws for Layered Permutations and Related Structures
University of Maryland Logic Seminar (2022)

Categorical Mirror Symmetry of Elliptic Curves (two lecture series)
University of Maryland Geometry and Physics Seminar (2018)

Generalized Calabi-Yau Manifolds
University of Maryland Geometry and Physics Seminar (2018)

CONFERENCES

6th International Conference on Applied Category Theory
University of Maryland (August 2023)

University of Maryland Geometry Festival
University of Maryland (May 2019)

Witt Vectors, Deformations, and Absolute Geometry
University of Vermont (June 2018)