

# MATTHEW J. KUKLA

mkukla1@umd.edu

<https://mkukla.net>  $\diamond$  <https://math.umd.edu/~mkukla1>

## EDUCATION

---

**University of Maryland**  
*Mathematics, BSc.*

Expected May 2022  
College Park, MD, USA

## WORK EXPERIENCE

---

**The Math Citadel**  
*Researcher*

Spring 2019 - present

- Conducted research in fuzzy set theory and network theory
- Developed numerous software packages
- Contributed to technical articles
- Addressed website security issues

**Patton Electronics**  
*Software Engineering Intern*

Summer 2016  
Gaithersburg, MD, USA

- Developed a Linux-based operating system for VDSL router prototype
  - Wrote and patched hardware-specific kernel modules
  - Tested kernel builds
  - Organized and documented existing codebase

## SKILLS

---

<b>Languages</b>	C, OCaml, Python, Java, MATLAB, Shell, Haskell, Fortran
<b>Operating Systems</b>	Linux, UNIX (*BSD and Solaris), MS-DOS, Microsoft Windows
<b>Web</b>	HTML, CSS, Apache, Gopher
<b>Tools</b>	L <sup>A</sup> T <sub>E</sub> X, Git, NEC2, SQL

## PUBLICATIONS AND PREPRINTS

---

**Logical Limit Laws for Layered Permutations and Related Structures**

*Authors: Samuel Braunfeld, Matthew Kukla (2021)*  
*Published, Enumerative Combinatorics and Applications.*

**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

---

### **University of Maryland Geometry Festival**

*University of Maryland (May 2019)*

### **Witt Vectors, Deformations, and Absolute Geometry**

*University of Vermont (June 2018)*