

**Dr. Kenneth M Monks**  
**Curriculum Vitae**

**Work Address**

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**Employment**

Faculty at Front Range Community College - Boulder County Campus, Department of Mathematics

August 2012 – present

Co-founder of Prove it! Math Academy, a proof-writing academy for high school students

August 2014 – present

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**Education**

Ph.D. and M.S. in Mathematics under Alexander Hulpke    Colorado State University  
May 2012

B.S. in Mathematics, minors in Comp Sci and Philosophy    University of Scranton  
May 2006

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**Courses Taught**

- Math for Liberal Arts
- College Algebra
- Business Calculus
- Precalculus
- Calculus I
- Calculus II
- Calculus III
- Differential Equations with Linear Algebra
- Discrete Mathematics
- Abstract Algebra (summer course at Colorado State University)
- Applications of Finite Group Theory (six-week graduate minicourse at Colorado State University)
- Many independent studies spanning topics in discrete mathematics

All courses taught at Front Range Community College - Boulder County Campus except where otherwise noted.

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**Awards and Honors**

- Boettcher Foundation Teacher Recognition Award (2022)
  - Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member, Mathematical Association of America (2020)
  - Early Career Teaching Award, Rocky Mountain Section of the Mathematical Association of America (2019)
  - Master Teacher Award, Front Range Community College – Boulder County Campus (2017)
  - Front Range Community College President’s Innovation Grant for creation of OER in calculus (2016)
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**Selected  
Professional  
Service**

- Co-editor in chief of *Annals of the TRIUMPHS Society*, the journal of the TRIUMPHS Society (2022 - present)
- MAA Anneli Lax Book Series Editorial Board (2022 - present)
- Front Range Community College - Boulder County Campus, Faculty Senate President (2019–2022)
- Rocky Mountain Section of the MAA - Vice Chair (2019–2022)
- Colorado Community College System - WeBWorK Liaison (2019–present)
- Front Range Community College - Strategic Planning Committee (2019–2021)
- Front Range Community College - OER Task Force/OER Council Member (2018–present)
- Front Range Community College - Boulder County Campus, Master Teacher Award Committee Chair and Member (2017–present)
- Colorado Mathematical Association of Two-Year Colleges, President (2017–2020)
- Front Range Community College - Boulder County Campus, Math Lab Director (2016–present)
- Serves as a referee for journals whenever reasonable to do so

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**Selected Talks**

<b>FRCC Assessapalooza</b> <i>WeBWorK: the free online mathematics homework platform!</i>	Virtual October 29, 2021
<b>Pikes Peak Regional Undergraduate Mathematics</b> Keynote Speaker. <i>Stupid Simple Examples – All We’ve Got!</i>	Virtual February 27, 2021
<b>Joint Mathematics Meetings</b> <i>Building an ODEs Course on Collaborative Overleaf Projects</i>	Denver, Colorado January 16, 2020
<b>Learning Assistant Alliance International Conference</b> <i>Developing Effective Materials for the LA-Supported Classroom</i>	CU Boulder Nov 3, 2018
<b>MathFest</b> <i>Implementing Primary Source Projects Using Overleaf</i>	Denver, Colorado Aug 4, 2018
<b>FRED Talks (Front Range TED-style Talks)</b> <i>Pólya Problem Solving</i>	FRCC BCC Mar 12, 2014
<b>Zassenhaus Group Theory Conference</b> <i>The Odd Partition Poset and Möbius Numbers of Subgroup Lattices</i>	Towson University May 29, 2011
<b>Rocky Mountain Algebraic Combinatorics Seminar</b> <i>The Marvelous Book <math>A=B</math></i>	Colorado State University Feb 11, 2011
<b>Groups St Andrews 2009</b> <i>Möbius Numbers and Two-Closures of Permutation Groups</i>	University of Bath, England Aug 3, 2009

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## Selected Publications

- Monks, K. “Fourier’s Infinite Series Proof of the Irrationality of  $e$ ,” *Convergence* (October 2022)
  - Barnett, J., Kyleve, D., Monks, K., and Parker, A. “Learning from the Master: A Collection of Euler-based Primary Source Projects for Today’s Students, Part I,” Volume 2, Issue 1, *Euleriana* (March 2022)
  - Monks, K. “Fourier’s Heat Equation and the Birth of Modern Climate Science: A Mini-Primary Source Project for Differential Equations and Multivariable Calculus Students,” *Convergence* (February 2022)
  - Monks, K. “Bhāskara’s Approximation to and Mādhava’s Series for Sine: A Mini-Primary Source Project for Second-Semester Calculus Students,” *Convergence* (May 2021)
  - Gillespie, M., Monks, K., and Monks, K. “Enumerating anchored permutations with bounded gaps,” *Discrete Mathematics*, Volume 343, Issue 9, Article 111957 (September 2020)
  - Monks, K. “Braess’ Paradox in City Planning: A Mini-Primary Source Project for Multivariable Calculus Students,” *Convergence* (May 2020)
  - Monks, K. “Euler’s Calculation of the Sum of the Reciprocals of the Squares: A Mini-Primary Source Project for Calculus II Students,” *Convergence* (August 2019)
  - Monks, K. “An Elementary Proof of the Explicit Formula for the Möbius Number of the Odd Partition Poset,” *Journal of Integer Sequences*, Volume 21, Article 18.9.6 (2018)
  - Monks, K., Monks, K., Monks, K., and Monks, M. “Strongly sufficient sets and the distribution of arithmetic sequences in the  $3x + 1$  graph,” *Discrete Mathematics*, Volume 313, Issue 4, Pages 468–489 (February 2013)
  - Monks, K. “The sufficiency of arithmetic progressions for the  $3x + 1$  Conjecture,” *Proceedings of the American Mathematical Society*, Volume 134, Pages 2861–2872 (May 2006)
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## Other Interests

**The Putnam.** Has been a competitor, coach, or grader for the William Lowell Putnam Mathematical Competition almost every year from 2002–present

**Cooking.** Offers cooking classes at the local food co-op, competes in cook-offs, and caters events for friends/family

**Family.** Proud to have an absolutely bonkers 3-year old with wife and local business owner Faith Mata

**Language Learning.** Recent (healthy!) obsession with language learning, leading to intermediate proficiency in Italian and the basic proficiency in Latin

**Music.** Plays guitar and writes songs for soul band Mama Lenny and the Remedy and folk band Sugarbirds

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