UNIVERSITY OF IOWA

IOWA MATH MONTHLY

Issue No. I – October 2026

WELCOME!

INAUGURAL ISSUE

Welcome to the inaugural issue of *Iowa Math Monthly*! The beginning of a new academic year brings with it feelings of motivation, excitement, and hope for a great year ahead. A new semester—especially a new fall semester—carries a special kind of anticipation. The possibilities for what we can accomplish feel limitless, and after a summer of rest and renewal, we return refreshed and ready to work toward our goals. Many of us also eagerly await the arrival of fall: changing leaves, cooler weather, fall sports, school spirit, and all the traditions that make this time of year special.

Our Mathematics community here at the University of Iowa is stronger than ever, and this newsletter is one way we can stay connected by sharing opportunities, achievements, scholarly work, community news, and a little bit of inspiration. This year, the Math Department welcomes 10 staff members, 32 faculty members, 1 postdoctoral researcher, 24 emeritus faculty, 89 graduate students, 70 undergraduate majors, and more than 350 undergraduate minors. We are so glad you are here!



Higher education is going through a generational transition, and there is much that is outside of our control. What we *can* control, however, is how we show up for one another. We can strengthen our community, support each other, lend a helping hand, be kind humans, and look out for one another. These things matter, especially during times of change.

So, here's to a semester filled with productivity, hope, achievement, community, and Hawkeye spirit. Go Hawks!

WANT TO BE FEATURED?

Do you have something to say? Does someone in the department deserve a 'kudos'? Do you have a cute pet? Submissions are always welcome and encouraged! Please complete the form linked below to be featured:

https://uiowa.qualtrics.com/jfe/form/SV_9srqrJtf2ng7AtE

FACULTY COMMITTEES

The 2026-27 faculty committee elections took place in September. Congratulations to our new committee members, and here's to a productive year!

Executive: **Bruce Ayati, Mohammad Farajzadeh-Tehrani** & **Keiko Kawamuro**

Graduate: **Zahra Aminzare** & **Frauke Bleher**

Teaching Evaluation: **Sergii Bezuglyi, Wade Bloomquist,** & **Lihe Wang**

Colloquium: **Daniel Drimbe** & **Lihe Wang**

Hiring: **Ben Cooper, Tong Li,** & **David Stewart**



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Photo from https://www.foriowa.org/iowa-stories/iowa-story.php?namer=true&isid=185

CELEBRATE IOWA HOMECOMING

Events:

Hawks Run Home 5k
Sunday, October 25th at 9:30 am
Hubbard Park - sign up here

Homecoming Pep Rally & Coronation
Thursday, October 29th at 7 pm
Pentacrest

Homecoming Parade
Friday, October 30th at 5:45 pm
Downtown Iowa City - route

Iowa Soccer Match
Friday, October 30th at 7 pm
UI Soccer Complex

Iowa Homecoming Concert
Friday, October 30th at 8 pm
Pentacrest Lawn

Iowa Football Game
Saturday, October 31st, time TBD
Kinnick Stadium

The weather is cooling, the trees are turning, and fall is officially here! With autumn and the first days of the fall semester comes Homecoming: a week to celebrate the past, present, and future Iowa!

Homecoming is a time for alumni to return home, students to show their school pride, and a community to celebrate the achievements of the University. A great way to gather with the student and community is to attend homecoming events!

Whether its participating in athletics, watching athletics, cheering on parade floats, or listening to some live music, this year's homecoming events have a little bit of everything.



KUDOS CORNER

Awards

Five second-year graduate students in the Mathematics PhD program were named Kleinfeld Scholars - **Daniel Álvarez, Lauren Collins, Jacob Heinrich, Jaden Segovia, & Puja Solaiappan**.

Professor Ionut Chifan received a 2026 Frontiers of Science Award in the Area of Mathematics, Functional Analysis, and Operator Theory along with coauthors Adrian Ioana, Denis Osin, and Bin Sun. To read their paper, *Wreath-like Products of Groups and Their von Neumann Algebras I: S-Superrigidity* in the Annals of Mathematics, follow this link! To learn more about the paper and Dr. Chifan's award, check out the News Article on the Math Department website!

Two students received undergraduate research assistantships for the Fall 2026 semester. **Connor Brooks** will be conducting research with Prof. Shaoping Xiao on his honors thesis. **Sophia Van Daele** is currently working with Prof. Zahra Aminzare. Connor and Sophia are both fourth-year students pursuing BS degrees in mathematics.

APPLY NOW!

If undergraduate students are interested in applying for an undergraduate research assistantship for the Spring 2027 semester, please visit the Undergraduate Research Assistantship section on the department's webpage for more information. Students are encouraged to start talking with a professor and planning a project this semester if they wish to receive an assistantship next semester.

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WHERE ARE THEY NOW? SPRING & SUMMER '26 GRADS

Mathematics PhD Graduates

Matthew Barber - Assistant Professor at Millikin University



José David Beltrán Lizarazo - Postdoctoral Fellow at Queen's University

Nicholas Cecil - Assistant Professor at State College of Florida Sarasota-Manatee



Claire Christian - Visiting Assistant Professor at the University of Iowa



Kit Fynaardt - Assistant Professor at Dordt University



Sam Holen - Assistant Professor in Residence at Bradley University

Shashank Singh - Visiting Assistant Professor at the University of Iowa



Jacob Van Grinsven - Visiting Assistant Professor at Wake Forest University

Eddie White - Rollins College



Yilin Zhu - Senior Applied Scientist at 2K Games

AMCS PhD Graduates

Quentin Chediak - Collins Aerospace

Ziqing Lu - Postdoctoral Associate at Wake Forest University



Natalie Randall - Applied Scientist at Seattle City Light



Yuan Yao - Postdoctoral Researcher at UT Southwestern Medical Center



Editor

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READING RESEARCH

Professor Aminzare - Tarrant, Kay, & Aminzare (2026), *Stability and Robustness of a Generalized Pump-Leak Model for Epithelial Vesicles* in Bulletin of Mathematical Biology. Link.

Professor Bloomquist - Bloomquist, Goldberg, & Scherich (2026), *Congruence Subgroups of the Virtual Braid Group* in Journal of Knot Theory and Its Ramifications. Link.

Professor Chifan - Chifan, Fernández Quero, Osin, & Tan (2026), *W*-superrigidity for property (T) groups with infinite center* in Advances in Mathematics. Link.

Professor Curto - Abhinand et al. (2026), *Subnormal and Hyponormal Toeplitz Operators with Operator-Valued Symbols* in Mathematische Nachrichten. Link.

Professor Farajzadeh Tehrani - Farajzadeh-Tehrani & Frohman (2026), *On compactifications of the* $\boldsymbol{SL}$ *(2,* $\mathbb{C}$*) character varieties of punctured surfaces* in Transactions of the American Mathematical Society. Link.

Professor Farthing - Wright et al. (2026), *Strengthening SoTL Ecosystems: A University of Iowa ISSOTL24 Cohort's Reflection & Impact* in Teaching & Learning Inquiry. Link.

Professor Han - Huang et al. (2026), *A Discontinuous Galerkin Method for* $\boldsymbol{H(curl)}$*-elliptic Hemivariational Inequalities* in Applied Numerical Mathematics. Link.

Professor Kawamuro - Capovilla-Searle et al. (2026), *On the Negative Band Number* in The Quarterly Journal of Mathematics. Link.

Professor Kinser - Askelsen & Kinser (2026), *Actions of Hopf-Ore Extensions of Group Algebras on Path Algebras of Quivers* in Journal of Pure & Applied Algebra. Link.

Professor Li - Baghel et al. (2026), *TDP-43 Dysfunction Facilitates the Pathological Conversion of Tau* in Molecular Neurodegeneration. Link.

Jiang et al. (2026), *The Pressureless Limit of the Riemann Solutions for the Improved Aw-Rascle-Zhang Traffic Flow Model with Speed-Density Collaborative Perception* in Physics of Fluids. Link.

Beltran & Li (2026), *Global Existence and Zero Relaxation Limit for Hyperbolic System Arising in Traffic Flow with Large Data* in Journal of Differential Equations. Link.

Professor Mitchell - Fynaardt, Leinheiser, Mitchell, & Grueter (2026), *Delay Differential Equation Approach to Oligomerization Reveals the Delay Dynamics Underlying Oscillations in Mitochondrial Fission* in Bulletin of Mathematical Biology. Link.

Young, Riley, & Mitchell, *Fast-Slow Analysis of a Model for the Stimulation of Enzymatic Activity by a Competitive Inhibitor* in SIAM Journal on Life Sciences. Link.

Professor Stewart - Arampath et al. (2026), *When do Simple Models Win? Machine Learning Architectures for UV Absorption Prediction* in Journal of Chemical Information and Modeling. Link.

Professor Wang - Liang, Wang, & Zhou (2026), *Co-regularity for solutions of elliptic equations with distributional coefficients* in Journal of Differential Equations. Link.

Professor Zhang - Yang, Zeng, & Zhang (2026), *The Uniqueness of the Ground State and the Dynamics of Nonlinear Schrödinger Equation with Inverse Square Potential* in SIAM Journal on Mathematical Analysis. Link.

Professor Zhu - Li, Zhang, & Zhu (2026), *Uncertainty-Aware Frequency-Domain Acoustic Full Waveform Inversion Using Gaussian Random Fields and Ensemble Kalman Inversion* in Geophysical Journal International. Link.

Zheng et al. (2026), *RGB-Enhanced Quantum Dot Spectrometers and Snapshot Spectral Imaging with Reduced Reconstruction Error* in Optics Expressions. Link.