September 26, 2023

Dear friends of the department,

I would like to give you an update on the 'latest' in the Department of Mathematics.

Personnel changes. This fall, we welcomed one new faculty member to our department:

- ● Dr. Yuming Sun joined us as an Assistant Professor. He obtained his Ph.D. from the University of Michigan Spring of 2023. His research and concentration area is biostatistics.

The university created a new Teaching or Research Faculty Framework, and as a result, some of our faculty members hold a new title:

- ● Marylou Zapf is now a Teaching Professor;
- ● Ed Chadraa, Heather Sasinowska and Stephen Trefethen are now Associate Teaching Professors.

This year, two of our faculty members have accepted other positions:

- ● Dr. Harsimran Somal took an Assistant Professor (general faculty) position at the Department of Statistics at University of Virginia.
- ● Dr. Daniela Hurtado-Lang took an Assistant Professor position at Kellogg School of Management at Northwestern University.

We wish them the best in their new employment!
The department now has 19 tenured or tenure-track faculty members, 4 Teaching Professors, 5 visiting professor/assistant professors, and 5 adjunct faculty. I invite you to visit our webpage to see the [pictures of our faculty members](.).

Curriculum Changes. This year, the Undergraduate Curriculum Committee launched a revision of our major requirements. Previously, we had three concentrations under the major of Mathematics: Standard Concentration, Applied Mathematics Concentration, and Pre-College Mathematics Teaching Concentration. There were four tracks under the Applied Mathematics Concentration. After the revision, we have

- a Standard Mathematics Concentration;
- a Pre-College mathematics Teaching Concentration;
- a **new** Statistics Concentration;
- an Applied Mathematics Concentration with no depth or breadth requirements.

In addition, each concentration will have an **Advanced Standing**. Anyone who has finished three or more courses at the 300- or 400-level beyond the minimum requirements of the four concentrations will qualify for Advanced Standing. We encourage all of our students to take more advanced mathematics courses.
This new requirement will be implemented in Fall 2024.

Faculty Achievements. Again, I want to emphasize that our faculty members are not only dedicated teachers, but also outstanding scholars. In the year 2022 alone, more than forty papers have been authored or co-authored by our faculty members. Here are some highlights of our faculty achievements:

- Mainak Patel's proposal "CRCNS Research Proposal: Collaborative research: Switching between antennal lobe dynamic regimes via sensory integration of olfactory and mechanical signals" was supported by the National Institutes of Health as a Principal Investigator of a collaborative research.
- Greg Hunt's proposal "HyperStats: Statistical Training for Interdisciplinary Hypersonics" was supported by Department of Defense, Air Force Office of Scientific Research
- Guannan Wang's proposal "Nonparametric learning for infectious disease and neuroimaging data analysis" was supported by the Simons Foundation.
- Greg Hunt and Rex Kincaid's proposal "Summer Collaborative Bridge: Connecting Student Summer Research Experiences across Academics and Industry" was supported by Virginia Space Grant Consortium.

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- Pierre Clare organized an international conference "Noncommutative Geometry and Analysis on Homogeneous Spaces" supported by the National Science Foundation and William & Mary.
- Ed Chadraa won the Simon Teaching Prize of the department in 2023.
- Guannan Wang was recommended for the Clark G. and Elizabeth H. Diamond Term Distinguished Associate Professorship. This term distinguished professorship appointment is for a three-year non-renewable term.

Student Achievements. At the University graduation ceremony, Yuxin Qin won the **Thomas Jefferson Prize** in Natural Philosophy. This prize is awarded to the best student in natural sciences at the graduation ceremony. Congratulations to Yuxin!

At the 2023 Departmental Graduation Ceremony, 46 math majors graduated. Among them, at least eight went to Ph.D. programs and at least ten went to prestigious M.S. programs. At the ceremony, several distinguished students obtained various departmental awards. **The William & Mary Prize in Mathematics** was awarded to Ryan Pesak. **The Cissy Patterson Award** was awarded to Jude Bedessem, Benjamin Bowles, Allison Introne, Jiakun Li, Luke Mrini, Logan Wolf, and Zhuorong Mao. **The Leiba Rodman Award** was awarded to Yuxin Qin. **The Luther T. Conner Prize** was awarded to Paul Anderson and Cameron Curtis. A big congratulations to all!

Despite the relative lower number of graduated majors last year than previous years, Mathematics courses are among the most sought-after on campus. In Fall 2022, Spring 2023 and Summer 2023, 3526 class seats were occupied by students in various mathematics courses. Among them, more than 894 seats were at the 300 level - or higher courses. We are glad to see the increased enrollment in our advanced theoretical courses, which we believe not only help sharpen students' thinking, but also provide a solid foundation for future learning.

We would like to know what is happening with you! We have updated our alumni page on the mathematics webpage so you may [Send Us Your News](#) through the link. You can

also follow the William & Mary Mathematics Department on our LinkedIn page. We are grateful for your continued support of the department again this year through our unrestricted fund. Your generosity provides many remarkable opportunities and experiences for our students and faculty. We are considering launching a venture to get you more involved in our department. Any suggestions would be greatly appreciated!

Finally, I would like to make you aware of the Homecoming & Reunion Weekend in Williamsburg on October 18–22:

- On Friday October 20, students from the Math Club will operate a probability-themed station under the aegis of PhysicsFest. This year's theme is superheroes: come by Small Hall to visit Joker's evil casino!

- On Saturday October 21, we will have a tailgate tent between Bright Street and the Alumni House. You are welcome to join us at the black and white canopy tent. We will have soft drinks, and a main dish for all. The tailgate will start at 12:30 pm. We will have a big screen television to show the game.

I look forward to welcoming you there with my colleagues!

Sincerely yours,

Gexin Yu

Professor and Chair of Mathematics