

Budapest Semesters in Mathematics

Volume 4, Issue 1

Spring 2015

The BSM Beat

Alumni newsletter for the BSM program

Save the Date for the M 'n M (Math and More) conference - October 3, 2015!

Exciting news! On October 3rd, 2015 the North American office of BSM will be hosting its first joint BSM Reunion and undergraduate mathematics conference in Northfield, MN at St. Olaf College. The M and M conference, Math and More, will feature undergraduate mathematics talks as part of the Northfield Undergraduate Mathematics Symposium, a panel discussion about career opportunities for mathematics majors and a keynote address designed for undergraduates.

We hope to have many BSM alumni attend the conference and share their experiences in their current career with the undergraduates in attendance. In addition, the closing event of the conference will be the BSM alumni Reunion dinner on the St. Olaf cam-Come and join your fellow BSM alumni to share your memories and pictures of your time in Budapest. Following the dinner, Professor Paul Humke will give a presentation about the history of Budapest Semesters in Mathematics and the early years of the program. We strongly encourage alumni to organize their own "minireunions" with the classmates from their BSM year following the dinner.

We will be sending more detailed information and registration instructions to all alumni who have updated their contact information by completing our form (which can be found on our website under the "Alumni" tab). Registration information will also be available on our website beginning on July 1st.

We sincerely hope that many alumni and their families will be able to join us at this first reunion event in the United States! If you are interested in attending and in sharing your experience about your current career (if you are in a mathematically related field), please contact Kendra Killpatrick at Kendra.Killpatrick@pepperdine.edu. You can also contact Kendra with any questions about the conference or for further details.

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Spring Semester 2015

- Students arrive for language intensive course: January 14th
- Orientation and welcome party: February 1
- Classes begin: February 2
- Classes end: May 15th
- Final exams: May 18-20
- Program ends: May 21

Alumni Spotlight: Nate Derby, BSM Alum from Spring 1996 President, Stakana Analytics

For Nate Derby, BSM in Spring 1996 among 30 students was tremendously influential; but not in the way he anticipated. As a math major from Pomona College, he thought BSM would be a great step toward a career in pure math. He fondly remembers all of his classes (including Combinatorics 2 with András Gyárfás and Complex Analysis with Zoltán Buczolich), but the most memorable was Probability with Bálint Tóth. He expected it to be easy since he took it before, but it covered many new topics and was quite challenging!

It became clear that his interests weren't in pure math. He once heard another student talk about staying up all night to prove something five different ways and thought "Why would anyone want to do that?" He felt he wasn't nearly as passionate or talented as many of the other students there (such as Tara Holm, now on the BSM Board of Directors).

Culturally, he had a fantas-

tic time in Budapest! Some of his best memories were weekend trips: Vienna, Bratislava, Venice (where a strike stopped the train at the border for eight hours, providing a surprise chance to explore Trieste with fellow BSM student Tung Tran), Lake Balaton, Croatia, the Slovakian countryside. But Budapest itself was the best: Lánchíd, Operaház, Oktogon, the Parliament Building, the food stands at the Déli Pályaudvar, palascinta, or the Budapesti Metró ("Tessék Vigyázni. Az Ajtók Záródnak!"). Just buying food at the grocery store was an adventure. And his biggest pride was learning enough Hungarian to bargain with a street vendor about the price of a wooden chess set!

When he returned to Pomona for his senior year, he had a crisis on his hands. He was a math major but didn't like math anymore! What could he do? He took his first classes in applied probability and statistics, which changed everything. Finally finding his passion,

he later received a Fulbright schol-

arship to study financial statistics in Germany (influenced by living in Hungary), received an MS in statistics from the University of Washington, and became an applied statistician in the business world, working for a number of companies before launching his own statistical consulting company.

He says "Having a deep background in pure math before going into applied math has made me a really effective statistician! I have a thorough understanding of the underlying mathematical models that many other applied statisticians don't. The business world could really use more statisticians with a pure math background."

BSM is amazing for students who want to do pure math -but it can be equally valuable for students who go into applied math!

What's happening in Budapest in the Spring 2015 Semester?

- 65 students will attend the program
 - 9 seniors
 - 50 juniors
 - 5 sophomores
 - 1 post-graduate
- Students from 52 different schools
- Students from 25

- states and 7 countries
- 27 female students,
 38 male students
- There are 32 math majors, 14 undeclared majors, 3 math and computer science majors, 5 math and physics majors, 2

math and economics major, 1 physics major, 2 math and philosophy majors, 1 math and film studies major, 1 math and English major, 1 engineering major, 1 math and biology major, 1 math and theater major and 1 math, eco-

- nomics and environmental studies major.
- Interesting tidbits about the class: One student has presented research in Switzerland, one student attended BSM in summer 2013, one student's dad attended BSM.

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Update on the new Summer Program

We are excited that the BSM Summer program is growing each year. This summer the program will run from the third week in June until the first week in August. Students will be expected to arrive in Budapest in mid-June and there will be an orientation

prior to the start of the program.

Four courses will be offered again this year (Combinatorics, Introductory Abstract Algebra, Real Functions and Measures, Advanced Mathematical Problem Solving) and students will be expected to take two of the

four courses. The tuition for the program will be \$4150. Other expenses can be found on the BSM website under the Summer Program tab. All summer students will be housed in apartments throughout the city of Budapest. The deadline to apply is March 1st.

Student Spotlight: Wunna Muang Moe Zow, BSM Spring 2015

Wunna is a junior at Washington University in St. Louis and will be heading to Budapest for the Spring 2015 semester. Wunna was born in Yangon, Myanmar (also called Burma) and was raised there for 18 years before coming to the United States to attend college at Washington University.

Wunna heard about BSM through the math department at Washington U and was immediately interested in the challenging course offerings and the fact that one can take such courses in Hungary, which is known to be a math powerhouse. Wunna is actually a stats major, so it will be a bit different to immerse himself in classes entirely in "pure" math. One might ask why a stats major wants to go to BSM. Through the various courses that he has taken, he has come to understand that regardless of whatever mathematical theory he chooses to engage in, it is important to know that the burden of proof lies on him and not on the audience. In the context of statistics, it is his responsibility to prove that the methods are sound and that the tools are valid. Therefore, being exposed to more proof-based, challenging classes, and especially with the resources of BSM, will help Wunna strive to be a better statistician

Washington U's math department highly recommends that every math major spend a semester or year abroad participating in the BSM program so Wunna knew about BSM through an admission program even before setting foot on the Washington U campus! Wunna decided to become a math major because he thinks that math and music are humans' universal languages and since he claims to have next to no talent in music, he decided to study math. He chose the field of statistics because it equips him with tools and reasoning skills to evaluate almost any claim made by anyone and helps him make sense of reality.

Wunna's favorite math classes so far have been his applied and computational statistics classes, but he particularly enjoyed his theoretical stats class called "Mathematical Statistics". this class he learned about the properties of the tools (estimators) that statisticians work with, such as efficiency and unbiasedness, and the various modes of convergence used in stats. He liked the course because they learned the "why" of the tools and the course prepared him to give in-depth explanations of why certain methods work in a rigorous manner, instead of simply relying on hand-waving, quasi-intuitive explanations.

While at Washington U, Wunna has been involved in Cornerstone, which is the school's academic mentoring resource center, and has worked as a calculus Residential Peer Mentor. He is

also involved in Pride Alliance, which provides a safe zone for people who identify as LGBTQIA to talk about their issues and struggles.



Wunna is looking forward to the many things Budapest has to offer! He is excited to see the beautiful buildings and to learn the Hungarian language (he is taking the intensive language course). He would also like to understand and learn more of Hungarian history and appreciate the culture of Hungary. He will be staying with a family to immerse himself in a rich cultural experience and he is looking forward to a home cooked meal after a long day of classes!

While Wunna doesn't have set plans for after graduation (still a year and a half away), he is thinking about working for a consulting firm and then possibly eventually considering graduate school. When he isn't doing math, he has a soft spot for arcades and retro games. In particular, he grew up with Dance Dance Revolution and has participated in tournaments back in Burma, so he may be organizing some events like this during the spring semester. He admits he is a bit nervous about his upcoming semester in Budapest but is looking forward to meeting all of the new students in just about one month.

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St. Olaf College 1520 St. Olaf Avenue Northfield, MN 55057

North American Director Dr. Kristina Garrett garrettk@stolaf.edu

Associate Director Dr. Kendra Killpatrick Kendra.Killpatrick@ pepperdine.edu

Program Administrator Eileen Shimota shimota@stolaf.edu

Have you updated your alumni contact information lately? Do so today!

The BSM organization would like to keep in touch with all of our alumni. If you move or your contact information changes, please contact us to update your information so we may continue to send you the BSM Beat and keep you informed about upcoming alumni reunion events. You will find an information update form on our website, www.budapestsemesters.com, under the Alumni heading or you may contact us in any of the following ways:

Email: Kendra.Killpatrick@pepperdine.edu
 OR budapestsemesters@gmail.com

Facebook group: BSM Forever

Webpage: www.budapestsemesters.com

Phone: 310-506-7796

Mail: Kendra Killpatrick
Associate Director, BSM
24255 Pacific Coast Hwy
Malibu, CA 90263-4321

New Opportunities for BSM Alumni

BSM Alumni, we would like to encourage you to share your experiences with the Budapest program with others, particularly those of you who continue to work in higher education. If you are currently a math professor, and if you are interested in giving a talk to the math majors at your institution about the Budapest Semesters in Mathematics program, we have a complete PowerPoint presentation already put together that we would be happy to share with you.

In addition, if you are a graduate student or a math professor who will be attending a Regional Undergraduate Mathematics Conference and would be interested in being on a panel about academic or summer opportunities for math majors or would be willing to sit at a table and hand out brochures and talk to undergraduates about your experience with BSM, please let us know. We would

be happy to help you make contact with the RUMC organizers, provide you with brochures and handouts and we can also provide you with a small stipend to reimburse you for travel expenses.

To request the BSM Power-Point or to inquire about representing the BSM program at an undergraduate math conference, contact Dr. Kendra Killpatrick at

Kendra.Killpatrick@pepperdine.edu.

If you have further ideas about ways in which you can share information about the Budapest program with undergraduates, feel free to contact us and we will help you in whatever ways we can! You, the alumni, are our most valuable resource for recruiting the next group of talented BSM students.

BSM Alumni Directory

The BSM Alumni Directory will be emailed once a year to all alumni who have given us a current email address. If you haven't updated your contact information, you can do so now by going to the webpage and clicking on Update Your Contact Info. Please encourage other BSM alumni you may know to fill out the form so we can make the directory as up to date as possible!

