Dear MATH+ Community,

Again, we successfully completed another virtual semester! As tiring as having everything in virtual reality is, we are glad that we could hold the MATH+ Fridays online, thanks to the BMS team’s joint efforts. The upcoming MATH+ events for the summer semester are listed further down.

Just last week, the traditional BMS Days also had to take place online, followed by the BMS students conference. Read a brief report below.

Furthermore, we are delighted to announce the next call for application for projects, details will follow by email shortly. We are also pleased that the members section of the MATH+ website is now officially online. Check it out at the bottom of the MATH+ homepage.

You’ll find further information about the prestigious SIGEST award for Michel Joswig and his colleagues and news about the funding by the Berlin University Alliance for the MATH+ project Schule@Decision-TheatreLab.

We are happy to welcome Fabian Telschow as head of the Junior Research Group “Statistical Inversion and Quantification of Uncertainties” at HU. We’ll present his research in the next newsletter. Moreover, the MATH+ Central Office is fully staffed again. We welcome back Lena Sonemann from her parental leave and Imren Karci for joining the team.

If you have any exciting news that you wish to share regarding your research, publications, prizes, interesting guests, the other MATH+ communication formats, or the next newsletter, please contact Beate Rogler with further information: <rogler@mathplus.de>.

Stay healthy and be careful!
With best wishes,
Call for Project Applications

We are delighted to announce there will be a new call for projects to start in 2022. The call will be published with full details on 24 March. The MATH+ Central Office will be happy to answer any questions you may have: calls@mathplus.de.

The deadline for submissions is 11 June 2021. We look forward to receiving your project ideas!

Paper by Team around Michael Joswig Selected as SIGEST Article

The Society for Industrial and Applied Mathematics (SIAM) selected the paper "Log-barrier interior point methods are not strongly polynomial" by MATH+ member Michael Joswig and his colleagues from École Polytechnique as a “SIGEST” article in the February edition of SIAM Review, the society’s flagship journal. The purpose of SIGEST is to make the over 10,000 readers of SIAM Review aware of exceptional papers published in SIAM’s specialized journals. SIGEST articles are nominated by the editorial boards of these specialized journals. The paper, which deals with a particular problem for solving linear programs, contributes significantly to investigating Smale’s 9th problem.

Testing Potential Covid-19 Drugs - Research Team Including BMS Alumnus and MATH+ Member

BMS alumnus Georg Gorgulla is working in a research team at Harvard Medical School with the goal of speeding up developing and gaining approval for new drugs. Together with MATH+ member, Konstantin Fackeldey from TU Berlin, they explore possible viral binding sites for COVID-19 drugs. Using the Virtual Flow software, which they developed a good year ago now, they have succeeded in conducting in the shortest time the world’s most extensive virtual screening program of substances with a potential impact on SARS-CoV-2. The results of this screening have now been published in the iScience open access journal.

BUA Funding for the MATH+ Project “Schule@DecisionTheatreLab”

The MATH+ project “Schule@DecisionTheatreLab”, led by Sarah Wolf (FU Berlin), was selected for funding in the framework “Experimental Science Communication Laboratories” by the Berlin University Alliance (BUA), Objective 2: Fostering Knowledge Exchange. The project will receive funding for the next three years. It will combine two science communication formats, "School Lab Workshops" and "Decision Theatres", and apply them on important societal challenges like Covid-19 or sustainable mobility concepts. Both formats will be conducted with high school students and future teachers of mathematics and will be subjected to evaluation by mathematics didactics as well as social sciences.
**MATH+ People**

* Der Tagesspiegel (FU Berlin Supplement) Portraits Sarah Wolf, MATH+ Junior Research Group Leader

Sarah Wolf is head of the MATH+ Junior Research Group on “Mathematics for Sustainability Transitions” and part of the Biocomputing Group of Freie Universität Berlin. She analyzes agent-based modeling for sustainability issues, and in the article, she explains how mathematics and modeling can support decision-makers and help shape the ecological turnaround.

Read more

* The MATH+ Central Office is Fully Staffed Again

We welcome back Lena Sonemann from her parental leave to resume her position at the BMS as FU Liaison Officer part-time. She studied modern history, political science, and Polish studies. Before joining MATH+, Lena worked in the NGO sector and arranged traineeships for international students.

Currently, she is organizing the BMS-BGSMath Junior Meeting 2021 between the Berlin Mathematical School and the Barcelona Graduate School of Mathematics (BGSMath). The biannual meetings aim at promoting the exchange between students and junior faculty members at both institutions. The cooperation’s common goal is to strive for excellence in their doctoral and postdoctoral training programs.

It is also a pleasure to welcome our new colleague, Imren Karci, who will share the BMS position as FU Liaison Officer with Lena part-time. Imren previously worked at the International Mathematical Union as a Project Assistant.

The Liaison Officers support the BMS students and doctoral researchers in dealing with the respective university’s administration, provide information about the respective regulations, and assist new students when arriving in Berlin. Together with Daniele Mariano (HU Liaison Officer) and Annika Preuß-Vermeulen (TU Liaison Officer), they will also be involved in the organization of MATH+/BMS events, workshops, and conferences.

**MATH+ Events**

* Review

**TES Final Conference of the Thematic Einstein Semester (TES) from 23-25 February**

The Thematic Einstein Semester 2020/2021 ended with a final conference from 23-25 February 2021. Each day, three lectures were given by renowned scientists on the topic of energetic-variational mathematical methods and their applications, followed by intensive discussions.

Read more
BMS Days and BMS Student Conference from 01-05 March 2021

Usually, selected BMS applicants were invited to travel to Berlin to participate in the BMS Days – the important annual BMS event to recruit promising young scientists. Due to the pandemic, this year’s BMS Days took place online from 01-02 March 2021. As the 50 Phase I applicants from 23 different countries (and five continents) were attending in different time zones, the BMS Days were offered in two groups. Unlike in previous years, all interviews were conducted online beforehand, and the purpose of the BMS Days was only for the applicants to get to know the BMS.

On the first day, the students received an overview of the BMS program and the students’ life in Berlin. This was followed by group meetings where applicants had the chance to ask the BMS students, faculty members, and office staff all of their questions in a smaller, more informal setting.

The second day gave an insight into different mathematical research topics in Berlin. Prof. Gabriele Steidl from Technische Universität Berlin talked about mathematical imaging and Prof. Gaëtan Borot from Humboldt-Universität zu Berlin spoke about matrix models. Both talks were preceded by the student-run “What is...?” seminars to give the audience a basic introduction. Afterwards, the applicants had the chance to meet BMS postdocs and PhD students and to hear about their research experiences.

Despite two very successful and exciting days for everyone involved, the BMS hopes to be able to welcome the next group of applicants in person again in 2022.

As always, the BMS Days were followed by the BMS Student Conference from 03-05 March, which also took place online for the first time. The main goals are to connect both current and prospective students and help prospective students get to know the mathematical landscape in Berlin and the social environment at the BMS.

Preview

MATH+ Fridays in the Summer Semester 2021

16 April: Maria Chudnovsky (Princeton University) – Kovalevskaya Colloquium
07 May: Anna-Karin Tornberg (KTH Stockholm)

Important Days and Events

14 March: International Day of Mathematics: The theme for 2021 is Mathematics for a Better World
22 April: Girl’s Day 2021
24 April: The 25th Berlin Mathematics Day will take place at Freie Universität Berlin