

SIAM Student Chapter Prague: Final Report 2020/2021

June 11, 2021

This document serves for internal purposes of the Chapter only and should be perceived as an overview of the Chapter activities in the past year extending the information filled out in the Final Report online form provided by SIAM.

Report on Chapter elections

On June 11, 2021 Chapter members elected the following officers to serve term from July 1, 2021 to June 30, 2022.

President:	Martin Sýkora
Vice President:	Alena Jarolímová
Secretary:	Jana Trdlicová
Treasurer:	Andrea Kučerová
Webmaster:	Jakub Fara

Chapter highlights

SIAM Visiting Lecturers online series

In summer 2020, when the COVID-19 pandemic started to grow stronger again in Czechia, our Chapter came up with the idea of making use of the [SIAM Visiting Lecturer Program](#) (VLP). This program was supposed to cover some of the activities that would have to be canceled due to the closure of Czech universities (which indeed turned out to be the case for the whole academic year 2020/2021). We decided to ask three scientists from the VLP roster to give video-lectures for our students. Namely, we reached out to Prof. Cleve Moler, Dr. Simone Bianco, and Dr. Stefan Wild, and all three scientists willingly agreed to present their research to us. (See the list of their talks and further details below.)

The VLP video-lectures were deemed a great success and they attracted many people from various mathematical departments. We also had a few participants from other SIAM Chapters from Germany. The lectures were recorded (with the consent of the speakers) and uploaded to a publicly accessible [YouTube playlist](#).

The feedback from participants of this series of video-lectures was fairly positive and we expect that even if the situation comes back to normal we would like to organize one or two VLP online talks a year in the future. Of course, we hope that sometime we will be able to invite the speakers to Prague so that they could give their talk in person.

How the SVD Saves the Universe? (Cleve Moler)

Date: October 22, 2020

Attendance: 60

Competition based therapy for RNA virus infection (Simone Bianco)

Date: November 19, 2020

Attendance: 35

Robust Design and Optimization with Missing Derivatives (Stefan Wild)

Date: March 11, 2021

Attendance: 35

Report on other Chapter activities

Due to a severe pandemic situation, universities in Czechia remained closed throughout the whole academic year 2020/2021. For this reason, we had to cancel most of our regular events that couldn't be held online. These include *I'm gonna write my bachelor's thesis in L^AT_EX!* (usually a one-day workshop focused on L^AT_EX typesetting and its use in writing a bachelor thesis) and *Introduction to FEniCS workshop* (a three-day workshop on FEM simulations which is now slated for September 2021 if the COVID-19 restrictions are lifted by then). We also had to postpone *Debate with General Petr Pavel* (a discussion with a top Czech army officer, who served from 2015 to 2018 as the Chairman of the NATO Military Committee, on the topics of cyber security and cyber awareness) for the next academic year. Lastly, *High school educational talks* (promotion of mathematics among high school students by our PhD students) were also put on hold until the situation allows to visit high schools safely.

Besides putting the effort into organizing the VLP talks and the events listed below our members also finished the process of including Czech Technical University in Prague (CTU) as a partner institution in SIAM Student Chapter Prague. Due to the unfavorable circumstances a proper student collaboration between CTU and Charles University hasn't fully developed yet but we look forward to co-organizing the aforementioned *Introduction to FEniCS workshop* and *High school educational talks* later this year together. Despite the pandemic situation we managed to recruit several student members from CTU.

Meeting with candidates applying for a research grant

Date: October 19, 2020

Attendance: 100

The Grant Agency of Charles University supports PhD students with their own research grants, however, the competition is tough. Each year, successful applicants from our Chapter in cooperation with the Academic Senate of the Faculty and [Matfyzák Society](#) (website in Czech) organize a meeting where we provide the potential applicants with advice on how to write a competitive grant application. Also, we invite the vice-deans and ex-members of the Grant Agency evaluation committee to help us highlight the important parts of the process. In fact, this annual event has a huge impact on the competition, as the quality of applications has significantly improved since we started organizing it. Due to the COVID-19 restrictions the event was held online this year.

Day of Doctoral Students

Date: June 10, 2021

Attendance: 35

Each year, the mathematical section of the Faculty of Mathematics and Physics, Charles University organizes a Day of Doctoral Students – a conference where PhD students present their research to a broad audience. Specifically, all graduate and undergraduate students as well as faculty members from various mathematical departments are invited to participate and learn about the research of our PhD students. The Chapter promoted this event and helped to organize the online gathering. Altogether, there were 24 presentations of PhD students of mathematics.

Business meeting

Date: June 11, 2021

Attendance: 20

We reviewed and assessed the activities of the Chapter in the past year and discussed the future development of the Chapter. We agreed on putting a special effort into organizing a student seminar which should primarily serve as a means for attracting new student members. Finally, we elected a new committee that shall serve in the academic year 2021/2022. There were a lot of new students present at the meeting who were genuinely interested in joining the Chapter and in organizing student activities with us.