

SIAM Student Chapter Final Report for 2011-2012 Academic Year (page 1 of 3)

Student Chapters receiving funds from SIAM are required to submit a final report of activities and finances by the end of the academic year. Please complete final report, sign and submit to SIAM office by June 30, 2012. Please attach separate sheet of paper if additional space is needed. *

Date of report: June 22, 2012

Student Chapter: Charles University in Prague Chapter of SIAM

Chapter Web site: http://siam.cuni.cz

Faculty Advisor: Josef Málek and Zdeněk Strakoš

Please check Chapter listing on SIAM Web site <http://www.siam.org/students/chapters/current.php> and report any changes below, or email revisions to snell@siam.org.

New officers: President Jan Papež, Vice President Marek Netušil, Secretary Jan Kuřátko,

Treasurer Nikola Hlaváčová, Webmaster Petr Lukáš

Chapter website: http://siam.cuni.cz

Demographics of Chapter Membership

Member type	
Undergraduates	19
Graduate members	18
Faculty members	2
Total Members	39

Gender	
Male	29
Female	10
Total Members	39

Departments	
Mathematics	23
Applied Math	11
Physics	5
Computer Science	0
Engineering	0
Statistics	0
Total Members	39

Ethnicity of members if known (optional)	
Caucasian	38
African American	0
Native American	0
Hispanic	0
Asian	1
Total Members	39

Report on Chapter Election*

Date of Election: May 22, 2012 to elect officers to serve term from July 1, 2012 to June 30, 2013.

Please provide office, name, & email address of all officers elected to serve.

President: Jan Papež, jan@papez.org

Vice President: Marek Netušil, marek.netusil@gmail.com

Secretary: Jan Kuřátko, kuratko@cs.cas.cz

Treasurer: Nikola Hlaváčová, hlavacova.nikola@post.cz

Other: webmaster: Petr Lukáš, luk.p@post.cz

Chapter Highlights

Please describe at least one activity in detail that might be a good idea to share with other chapters, suitable for posting on the SIAM website or SIAM Student Chapter Facebook page. (Please attach a separate sheet of paper if additional space is needed.)

See the attached file Chapter_highlights_Prague_2012.pdf, please.

* Since our chapter was newly established in 2011, we held two elections in the academic year 2011/12. Please see the last page of this file for a report on the first elections.

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Report on Chapter Activities

Please provide complete description of all Chapter activities, including details on number & type of meetings with approximate number of attendees, name of invited speaker(s) & topic of presentation, contests, awards, field trips, etc. (Please attach a separate sheet of paper if additional space is needed.)

TITLE OF EVENT OR PRESENTATION: Meeting with students of Mathematical Modeling and Numerical Mathematics

DATE OF EVENT OR PRESENTATION: October 10, 2011

NUMBER OF PARTICIPANTS: ~10

SPEAKER, INSTITUTIONAL AFFILIATION: _____

EVENT DESCRIPTION OR PRESENTATION ABSTRACT: Meeting of undergraduate students with current students of two applied disciplines at our faculty: Mathematical and Computer Modelling in Physics and Engineering as well as Numerical and Computational Mathematics. The undergraduates got a detailed information on these specializations which can help them to decide whether they fit their interests. Some of the undergraduates have chosen to study one of the applied disciplines - a success for the chapter.

TITLE OF EVENT OR PRESENTATION: Meeting with candidates applying for a research grant within the Grant Agency of the Charles University

DATE OF EVENT OR PRESENTATION: November 2, 2011

NUMBER OF PARTICIPANTS: ~10

SPEAKER, INSTITUTIONAL AFFILIATION: _____

EVENT DESCRIPTION OR PRESENTATION ABSTRACT: The Chapter helped prospective candidates to apply for a research grant within the Grant Agency of the Charles University especially designed to fund student research. Members of the chapter and other students who already received the grant, gave the prospective candidates advice what points to stress and what not to forget in their application. Two of the five advised research teams then truly obtained the funding.

TITLE OF EVENT OR PRESENTATION: Official presentation of the Chapter

DATE OF EVENT OR PRESENTATION: December 5, 2011

NUMBER OF PARTICIPANTS: ~30

SPEAKER, INSTITUTIONAL AFFILIATION: _____

EVENT DESCRIPTION OR PRESENTATION ABSTRACT: We officially introduced our Chapter to the academic community of our University - high representatives of our Faculty as well as the University were invited to meet the newly established Chapter members. During the presentation the advisors of the Chapter, professors Josef Málek and Zdeněk Strakoš, explained why they were enthusiastic about the idea of establishing a SIAM Student Chapter at our University. Also the currently serving Chapter president, Barbora Benešová, explained the SIAM Student Chapter project and the aims and goals of our Chapter and presented the Chapter's logo. The presentation was followed by refreshments including very tasty cake with the logo of our Chapter drawn on the top.

TITLE OF EVENT OR PRESENTATION: Discovering the invisible by means of digital image processing

DATE OF EVENT OR PRESENTATION: December 5, 2011

NUMBER OF PARTICIPANTS: ~40

SPEAKER, INSTITUTIONAL AFFILIATION: Filip Šroubek, Academy of Sciences of the Czech Republic.

EVENT DESCRIPTION OR PRESENTATION ABSTRACT: Filip Šroubek gave a lecture on digital image processing and introduced to us many approaches he is using to either enhance pictures, extract relevant information from them and/or to recover relevant information from the image. We have learned that many methods used in image processing are based on important mathematical tools like Fourier and wavelet transforms and even on calculus of variations.

TITLE OF EVENT OR PRESENTATION: Introduction to Programming in Matlab

DATE OF EVENT OR PRESENTATION: February 13-17, 2012

NUMBER OF PARTICIPANTS: ~20

SPEAKER, INSTITUTIONAL AFFILIATION: Marie Michenková, Jan Papež, Faculty of Mathematics and Physics, Charles University

EVENT DESCRIPTION OR PRESENTATION ABSTRACT: A five-day intensive programming course organized by the chapter members Marie Michenková and Jan Papež. The aim of the course was to give a brief introduction to more advanced aspects of programming in Matlab including applications and possible alternatives to this highly useful commercial tool. The main part of the classes was spent on how to solve problems in Matlab in a clever way.

TITLE OF EVENT OR PRESENTATION: Meeting with alumni - Filip Matějka

DATE OF EVENT OR PRESENTATION: February 20, 2012

NUMBER OF PARTICIPANTS: ~20

SPEAKER, INSTITUTIONAL AFFILIATION: Filip Matějka, Center for Economic Research&Graduate Education - Economics Institute

EVENT DESCRIPTION OR PRESENTATION ABSTRACT: Filip Matějka is an alumni of our faculty who received his Ph.D. from Princeton University advised by the Nobel prize laureate Christopher A. Sims. After completing his Ph.D., he returned to the Czech Republic and works now at Center for Economic Research&Graduate Education - Economics Institute, Charles University, one of the most prestigious economic research institutions in the country. He tried to motivate undergraduates to pursue a career in mathematics applied to economics. He explained that economics is based on mathematics much more than it might seem on the first sight.

TITLE OF EVENT OR PRESENTATION: Well computed risk

DATE OF EVENT OR PRESENTATION: February,27 2012

NUMBER OF PARTICIPANTS: ~120

SPEAKER, INSTITUTIONAL AFFILIATION: Karel Janeček, RSJ algorithmic trading

EVENT DESCRIPTION OR PRESENTATION ABSTRACT: Karel Janeček graduated from our faculty and from the Carnegie Mellon University. He is the founder of the RSJ Algorithmic Trading - one of the biggest algorithmic traders currently trading in London, Chicago and Frankfurt. He presented not only basic ideas in algorithmic trading but also his view on bridges between academia and industry as well as his opinion on the financial crisis. His person and his talk provoked high interest from students and general public who eagerly asked questions for more than one hour.

TITLE OF EVENT OR PRESENTATION: Meeting with alumni - Jan Slavík

DATE OF EVENT OR PRESENTATION: April 26, 2012

NUMBER OF PARTICIPANTS: ~20

SPEAKER, INSTITUTIONAL AFFILIATION: Jan Slavík, ŠKODA AUTO

EVENT DESCRIPTION OR PRESENTATION ABSTRACT: Jan Slavík is an alumni of our faculty who after completing his M.Sc. pursued his career in industry taking a job at the largest car producer in the country ŠKODA AUTO. He is responsible, e.g., for modeling of air flow around newly designed cars and for optimization. He explained in which way his study at our faculty was useful in his professional life and encouraged students to apply for jobs in the ŠKODA AUTO company that is constantly seeking talented mathematicians.

TITLE OF EVENT OR PRESENTATION: Business meeting

DATE OF EVENT OR PRESENTATION: May 22, 2012

NUMBER OF PARTICIPANTS: ~30

SPEAKER, INSTITUTIONAL AFFILIATION: _____

EVENT DESCRIPTION OR PRESENTATION ABSTRACT: At the business meeting we recalled the activity of the Chapter in the last year and had time for summarizing our successes but also noted what should be improved in the future. The advisors took a chance to appreciate our work and pointed out that activity within the Chapter is an important contribution of students to the University. The advisors have awarded Barbora Benešová by the SIAM Student Chapter Certificate of Recognition for her year-round effort and starting the Chapter. We have elected a new committee that will serve in the year 2012/13.

TITLE OF EVENT OR PRESENTATION: Ph.D. seminar

DATE OF EVENT OR PRESENTATION: 11 seminars in two-week interval

NUMBER OF PARTICIPANTS: ~10

SPEAKER, INSTITUTIONAL AFFILIATION: students of our faculty: Barbora Benešová, Gábor Pathó, Darja Suchá, Jaroslav Havrda, Karel Tůma, Jakub Tichý, Tomáš Gergelits, Jan Papež, Petra Čadilová, Jindřich Soukup, Petr Lukáš

EVENT DESCRIPTION OR PRESENTATION ABSTRACT: The seminar took place in a two-week interval and gave eleven M.Sc. or Ph.D. students the opportunity to present their work in approximately 60-minutes long lectures. Special emphasis was laid upon clarity of the presentation and feedback. This made the presentations especially interesting and enjoyable for other students. The seminar will continue next year.

For SIAM NEWS

Please identify special chapter activities that could be reported in SIAM News:

We would like to suggest the lecture by Karel Janeček given in the Highlights-section.

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Report on Chapter Finances

Allowable expenses include honoraria or travel for a speaker invited to address the chapter, light food and beverage at chapter meetings; copying and printing promotion information on the chapter and its activities; one-day field trips (minimum four students) to industry, SIAM section meeting, or regional SIAM student chapter conference.

Non allowable expenses include awards, prizes, registration for conferences, individual travel to meetings, hotel accommodations. Please note that Chapter funds can not be used for attendance at SIAM meetings, other than a field trip as described above, nor to attend meetings organized by other professional societies. Other types of expenditures may be requested, but require prior approval.

	ACTIVITIES FUNDED BY SIAM	+ ACTIVITIES FUNDED BY OTHER SOURCES	= TOTAL
Income			
SIAM funds received for 2011-2012	\$ 500	+ \$	= \$ 500
SIAM funds carried over from prior years	\$	+ \$	= \$
Chapter dues (optional)		\$	= \$
Department funds		\$	= \$
Student activity funds		\$	= \$
Other university funds		\$	= \$
Corporate sponsorship (please specify *)		\$	= \$
Other (please specify *)	\$	+ \$	= \$
TOTAL INCOME [x]	\$ 500	+ \$	= \$ 500
Expense			
Speakers at Chapter Meetings - travel expenses	\$	+ \$	= \$
- honorarium	\$	+ \$	= \$
Food & Beverage	\$ 308	+ \$	= \$ 308
Supplies and printing	\$	+ \$	= \$
Marketing, advertising, promotion	\$ 192	+ \$	= \$ 192
One-day field trip (minimum four students) to industry, SIAM Section meeting, or regional SIAM student chapter conference (please specify *)	\$	+ \$	= \$
Other travel - travel to meetings, conference registration, hotel, etc (not an allowable SIAM expense)		\$	= \$
Awards (not an allowable SIAM expense)		\$	= \$
Other (please specify *)	\$	+ \$	= \$
TOTAL EXPENSE [y]	\$ 500	+ \$	= \$ 500

NET REVENUE (LOSS) [z] [x - y = z] \$ 0 + \$ = \$ 0

Unexpended funds may be returned to SIAM or may be reallocated to the chapter upon submission and approval of a request for funding for the following year.

* Please attach separate sheet of paper if additional space is needed.

Yong Ky
Signature Faculty Advisor
Karel Tuma
Signature Chapter President, Secretary or Treasurer

June 22, 2012
Date
Karel Tuma (Secretary)
Name (please print) Chapter President, Secretary or Treasurer

Sign and Submit by June 30, 2012 to
Nancy Snell, Membership Coordinator
Society for Industrial & Applied Mathematics (SIAM)
3600 Market Street, 6th Floor Philadelphia, PA 19104-2688 USA
Phone: +1-215-382-9800 Fax: +1-215-386-7999 E-Mail: snell@siam.org

Detailed expenses

In the table we present in detail how much money we spent on each event for the refreshment from the entry Food & Beverage.

<i>Event</i>	<i>Spent</i>
Meeting with students of Mathematical Modeling and Numerical Mathematics	\$ 16
Meeting with candidates applying for a research grant within the Grant Agency of the Charles University	\$ 6
Official presentation of the Chapter	\$ 56
Introduction to Programming in Matlab	\$ 46
Discovering the invisible by means of digital image processing	\$ 11
Meeting with alumni – Filip Matějka	\$ 14
Well computed risk	\$ 19
Meeting with alumni – Jan Slavík	\$ 11
Business meeting	\$ 48
Ph.D. seminar (11 seminars)	\$ 81

For marketing, advertising, and promotion we have spent all money on buying T-Shirts with the Chapter logo on them. We did not have to use any money for printing the posters, leaflets etc., because our faculty enabled us to print them using their machines and paper. We do not specify these costs because we are not able to quantify them.

Report on Chapter Election 2011

Date of Election: November 22, 2011 to elect officers to serve the term from November 22, 2011 to June 30, 2012.

<i>Office</i>	<i>Name</i>	<i>e-mail</i>
President	Barbora Benešová	barbora@gmx.at
Vice President	Ivana Šebestová	ivasebestova@seznam.cz
Secretary	Karel Tůma	ktjunior@seznam.cz
Treasurer	Nikola Hlaváčová	hlavacova.nikola@post.cz
Webmaster	Kryštof Touška	krystof@touska.net