



Caucasian Mathematics Conference (CMC-III)

Rostov-on-Don, RUSSIA, August 26-29, 2019

Final Report

The third Caucasian Mathematics Conference (CMC-III) was organized in Rostov-on-Don, Russia on August 26-29, 2019, under the auspices of the European Mathematical Society (EMS) on the base of Southern Federal University (SFedU) and with cooperation of Armenian, Azerbaijan, Georgian, Iranian, Moscow and Turkish Mathematical Societies. The main goal of Caucasian Mathematics Conferences (CMC) is to bring together mathematicians from Caucasian and neighboring countries biannually in one of participating states. The mathematicians from all over the world were also welcomed in CMC.

PREHISTORY: During the meeting of presidents of mathematical societies of Europe in Aarhus on April 6, 2013 the President of Turkish Mathematical Society **Betül Tanbay** suggested to launch the Caucasian Mathematical Conference. Her idea was to gather mathematicians from Armenia, Azerbaijan, Georgia, Iran, Russia and Turkey. This suggestion was supported by the President of the European Mathematical Society Marta Sanz Solé, the Representative of the Moscow Mathematical Society and EMS Executive Committee member Armen Sergeev and the President of the Georgian Mathematical Union Roland Duduchava.

The first CMC-I was organized in Tbilisi, Georgia on September 5-6, 2014, the second CMC-II took place in Van, Turkey on August 22-24, 2017. At the end of the Van conference, on August 24, 2017, the Steering Committee of CMC-II has taken the decision to have CMC-III in the last half of August 2019, in Rostov-on-Don, Russia.

PREPARATION: The Steering Committee formed for the management of CMC conferences and was responsible for the proposal of invited speakers and young invited mathematicians (under 40 years old) from participating mathematical societies, selection of the next organizers of CMC. It consisted of representatives of participating mathematical societies and included:

1. Volker Mehrmann (ex officio: President of European Mathematical Society)
2. Stanislaw Janeczko (ex officio: Chair of the EMS Solidarity Committee)
3. Yuri Movsisyan (President of Armenian Mathematical Society)
4. Asaf Hajiyev (Representative of Azerbaijan Mathematical Society)
5. Roland Duduchava (Chairman of the Georgian National Committee for Mathematics)
6. Mohammad Sal Moslehian (Representative of Iranian Mathematical Society)
7. Armen Sergeev (Representative of Moscow Mathematical Society and Vice-President of EMS)
8. Betül Tanbay (Representative of Turkish Mathematical Society and Vice-President of EMS)

The Chair of CMC-III was **Armen Sergeev** as the member of the Steering Committee from the country organizing the conference.

The Scientific Advisory Committee (SAC) of CMC-III consists of the invited speakers of CMC-II. The Committee selected the invited speakers and young invited mathematicians proposed by the Steering Committee. The list of members of SAC:

1. Saied Azam (Iran)
2. Alexander Bufetov (Russia)
3. Pavel Exner (Czech Republic)
4. Tigran Harutyunyan (Armenia)
5. Garib Murshudov (Azerbaijan)
6. Eugene Shargorodsky (UK / Georgia)
7. Ali Ülger (Turkey)

The Organizing Committee was responsible for the scientific program and social program of the conference, book of abstracts and the total organization of CMC-III. It consisted of **Armen Sergeev** (Chair) and local organizers: **Alexey Karapetyants** (Co-chair), **Vladislav Kravchenko**, **Joel Esteban Restrepo**, **Olga Pichugina** (scientific secretary).

The conference website was reachable at <http://euro-math-soc.eu/cmc/> The conference local organizers website for information and registration is <http://rus-cmc.sfedu.ru/>.

After discussions with member societies and EMS the Steering Committee has approved the list of plenary speakers, which was uploaded at the conference's webpage. However, some plenary speakers were not able to come, and the Organizing Committee, after consultation with members of the Steering Committee, took decision to update and complete the list of Plenary and Young invited speakers. The plenary speakers were: YURI MOVSISYAN (Faculty of Mathematics and Mechanics, Yerevan State University, Armenia), ASAF HAJIYEV (Institute of Control Systems, Azerbaijan National Academy of Sciences, Azerbaijan), RAGNI PIENE (Department of Mathematics, University of Oslo, Norway), DUDUCHAVA ROLAND (A. Razmadze Institute of Mathematics, I. Javakhishvili Tbilisi State University, Georgia), ALEXANDER GAIFULLIN (Department of Geometry and Topology, Steklov Mathematical Institute, Russia), CEM YALÇIN YILDIRIM (Boğaziçi University, Turkey), PAVEL EXNER (Doppler Institute for Mathematical Physics and Applied Mathematics, Czechia), MASSIMO LANZA DE CRISTOFORIS (University of Padua, Italy), ARMEN SERGEEV (Steklov Mathematical Institute, Russia). The young invited speakers (under 40) were: LUSINE POGHOSYAN (Institute of Mathematics, National Academy of Sciences, Armenia), ALI HAMIDOGLU (Department of Mathematics, Istanbul Technical University, Turkey), SAMIN MALIK (Institute of Mathematics and Mechanics, Azerbaijan National Academy of Sciences, Azerbaijan), TEPHNADZE GEORGE (The University of Georgia, Georgia), NASSER GOLESTANI (Department of Pure Mathematics, Tarbiat Modares University, Iran), DAVOUD MIRZAEI (Department of Mathematics, University of Isfahan, Iran), ALEXANDER KOMLOV (Department of Complex Analysis, Steklov Mathematical Institute, Russia), SINEM ÇELİK ONARAN (Department of Mathematics, Hacettepe University, Turkey), TÜRKER ÖZSARI (Department of Mathematics, Izmir Institute of Technology, Turkey).

FUNDING: Organizing Committee received financial support for the Conference from the Russian Foundation for Basic Research (RFBR, grant No. 19-01-20006). Also, the Regional Mathematical Center of Southern Federal University (RMC of SFedU) supported CMC-III with additional funds (project No. 1.13558.2019/13.1). Thanks to the received support, the Organizing Committee was able to provide accommodation for all plenary and young invited speakers, and to partially sponsor the events of the conference to keep the participation and banquet/excursion fees as low as it possible. Also, for the registered conference participants and accompanying persons there were lunches, welcome and closing furshets without additional fee.

PARTICIPATION: The Organizing Committee of the Conference has registered about 130 applications for the participation in CMC III. About half of these applicants were able to attend the Conference: 5 from Armenia, 3 from Azerbaijan, 3 from Georgia, 2 from Iran, more than 30 from Russia, 11 from Turkey and 10 from other countries: Germany, Czechia, Italy, Norway, UAE, Mexico, Colombia. Most importantly about half of the participants who presented their research at the Conference were young mathematicians up to 40.

CONFERENCE: CMC III was opened on August 26, at 10.00, in the Conference Hall of the Southern Federal University by the Chair Armen Sergeev. Welcome addresses were given by Volker Mehrmann, Pavel Exner, Betül Tanbay, Roland Duduchava, Alexey Karapetyants. After the Opening Ceremony the scientific program of the Conference started with the first three 45-minute invited lectures given by the invited speakers. In the afternoon parallel sessions were organized. In addition, Round table on Math Education took place. The first day was closed with a furshet before which the meeting of the Steering Committee took place. The next day continued with plenary session. After the first EMS lecture the Conference was greeted by the Rector of the Southern Federal University Inna Shevchenko. A bus excursion to the Staroherkasskaya village and boat trip back from Staroherkasskaya village to Rostov-on-Don was organized in the afternoon. The third day of the Conference included lectures of the invited speakers all day long, and it was ended with the conference's dinner. The last fourth day followed the scheme of the first day and ended with closing furshet.

NEXT CMC: The Steering Committee had a meeting the first afternoon. Participants were: Roland Duduchava, Pavel Exner, Tigran Harutyunyan, Armen Sergeev, Betül Tanbay and Attila Aşkar. Volker Mehrman was representing EMS, Asaf Gadzhiev represented Azerbaidjan Mathematical Society and Davoud Mirzaei Iranian Mathematical Society.

At the meeting it was decided to:

1. Organize the next CMC in Armenia in 2021.
2. On each meeting of the Steering Committee elect newly elected Presidents of Mathematical Societies or their chosen representatives to the Committee.
3. Keep the three founding members of CMC, namely Duduchava, Sergeev and Tanbay, as permanent members of the Steering Committee.
4. Have each Scientific Advisory Committee member serving for two conferences.

Armen Sergeev,

Chair of CMC-III

October 2, 2019.

