

Bulgarian–Serbian Cooperation in Astronomy: the Last 10 years of Development

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Abstract.

The fifth conference on astronomy and space science [1] is a result of active contacts and joint research programs between the Bulgarian and Serbian astronomers during last 10 years. In the paper the main results from the four joint conferences held in Belogradchik (Bulgaria), Gamzigradska Banja (Serbia), Gjolechitsa (Bulgaria) and Belgrade, are summarized briefly. We report the rising interest to participation in the conferences from both sides and also from astronomers from other European countries. Bulgarian–Serbian bilateral contacts in astronomy are on the bases of the renewed bilateral collaboration between Bulgarian and Serbian Academies of Sciences, as well as the regional Balkan collaboration in Astronomy and Space sciences and programs supported by UNESCO. This 5th conference with more than 75 participants confirm the tendency of enlargement of the Bulgarian-Serbian joint work in Astronomy and Space Sciences.

1 First Contacts

During the JENAM conference in Catania (1995) Milan S. Dimitrijević met the bulgarian astronomer Asen Mutafov, to whom expressed his wish to collaborate with Bulgarian astronomers. He also talked to him that he organized Serbian–Hungarian and Serbian–Romanian astronomical meetings and, due to the closeness of the Serbian and Bulgarian languages it will be very useful to organize Serbian–Bulgarian Astronomical Meeting. They discussed the convenient persons to start collaboration and Mutafov indicated to Dimitrijević Milcho Tsvetkov.

Dimitrijević and Tsvetkov met for the first time during the JENAM conference in Perea near Thessaloniki in 1997 and established contact discussing also the possibility to organize a meeting of the Bulgarian and Serbian astronomers.

In May 1998 Dimitrijević visited Istanbul and Sofia where he was a guest of Milcho Tsvetkov. They visited together National Astronomical Observatory



Figure 1. Participants at the JENAM 1997, Perea (Greece) LR: G. Djurašević, K. Tsvetkova, P. Rovithis, M. Stavinschi, H. Rovithis-Livaniou, M. S. Dimitrijević, M. Tsvetkov, E. Semkov

Rozhen, where they discussed with Radostin Kurtev and later in Sofia with more colleagues from the Institute of Astronomy and Astronomical Observatory of the Sofia University. During the lecture of Milan S. Dimitrijević presented on 18 May 1998 “Astronomy in Belgrade Astronomical Observatory – Historical review and perspectives” he met Professor Nikola Nikolov, Professor Georgi Ivanov, Professor Vladimir Shkodrov, Docent Valeri Golev, Dr. Alexander Antov, Dr. Renada Konstantinova-Antova and other Bulgarian astronomers.

Tsvetkov and Dimitrijević discussed the possibility to organize Bulgarian-Serbian Astronomical Meeting in summer in Belogradchik observatory of the Bulgarian Academy of Sciences. With the support of Professor Georgi Ivanov and Alexander Antov – Director of Belogradchik Observatory, they decided to organize such a meeting the same year in August. Dimitrijević explained that in the time when existed common Yugoslav television where Macedonian and Slovenian were spoken every day without translation, it was normal that people talk in their own language and that for example a Serb and a Macedonian understand each other. He proposed that Bulgarian and Serbian are the working languages of the common meeting, supposing that after several conferences, all, and especially young astronomers, will understand each other talking in their own languages.

2 First Bulgarian–Serbian Astronomical Conference

The first meeting, initiated by Tsvetkov and Dimitrijević, took a place in Belogradchik from 5 to 8 August 1998 [2]. Co-chairmen of Scientific Organizing



Figure 2. In front of the Sofia Observatory after M. S. Dimitrijević lecture in May 1998

Committee (SOC) were Georgi Ivanov and Dimitrijević. Serbian participants, Milan S. Dimitrijević, Luka Č. Popović, Ištvan Vince, Miodrag Dačić, Zorica Cvetković, Jelisaveta Arsenijević, Dragana Tankosić, Veselka Trajkovska, Nataša Stanić, Nataša Popović, Vesna Živkov, Edi Bon, Predrag Jovanović, Slavica Pavić, Dragan Pavić, came with a bus via Mihajlovo-Bregovo nearest place to cross the Bulgarian–Yugoslav border. The Serbian participants visited Ceremošnja cave, surface copper mine in Majdanpek, Rajko's cave and Bukovo monastery in Serbia. The conference was held in the House of Youth in Belogradchik, and we were received by the Lord Mayor Vladimir Zhivkov. Apart of 15 Serbian and 18 Bulgarian astronomers, Mijat Mijatović from Macedonia also participated. During the conference, the Bulgarian, Serbian and Macedonian participants had an informal understanding on the common use of some Rozhen and Belogradchik observatory facilities, which was, together with this conference, the first preparation for the later observations of Serbian astronomers (some of them together with Bulgarian colleagues, as for example Luka Č. Popović, Katya Tsvetkova and Konstantin Stavrev at Rozhen Observatory). Proceedings, containing 13 papers in Bulgarian, Serbian and English were published as Publications of Astronomical Observatory of Belgrade Vol. 64, 1-124 [3]. This conference was also a very important step for the Balkan cooperation. We would like to mention the great support of the Sofia University and especially Prof. G. Ivanov in the organization of this first meeting.



Figure 3. Participants in the first meeting

3 Second Bulgarian–Serbian Astronomical Conference

The second conference was organized from 23 to 26 June 2000 in Gamzigradska Banja near Zaječar. Dimitrijević and Tsvetkov were SOC Co-chairmen and Nenad Milovanović – Chairman of the Local Organizing Committee [4]. The conference was held in the hotel of Timok electro-distribution company, besides the first hydroelectric power station in Zaječar, build by the director (1899–1900) of the Belgrade astronomical observatory, the first Serbian astrophysicist and rector of Belgrade University – Djordje Stanojević. Three excursions were organized. One to Negotin, where Museums of Djordje Stanojević and the great Serbian composer Stevan Mokranjac were visited, as well as the old church with the grave of Hajduk Veljko and Djerdap 2 hydro power station on Danube, and Rajačke pivnice. Other two excursions were in the palace of the roman emperor Galerius, Romuliana Felix in Gamzigrad, and in Suvodol monastery. Proceedings with 26 papers were published in the Publications of Astronomical Observatory of Belgrade Vol. 67, 1-140 [5]. From Bulgaria in the second conference participated Milcho Tsvetkov, Katya Tsvetkova, Alexander Antov, Renada Konstantinova-Antova, Konstantin Stavrev, Liubomir Iliev, Vasil Popov, Rumen Bogdanovski, Ana Borisova, Jordan Asenov and Asenka Asenova.

After the excellent results achieved during the second Conference in Serbia in September 2000, the Astronomical Observatory in Belogradchik (Bulgaria) hosted the Balkan Meeting of Young Astronomers [6,7]. The idea of the meeting was to put into “interaction” relatively young people from the Balkan countries



Figure 4. Participants of the second Serbian–Bulgarian Astronomical meeting during the visit of the Felix Romuliana ancient Roman emperors residence nearby Gamzigrad

who are either finishing their university studies of astronomy (but also physics and related sciences) or who have already embarked on research careers in space science.

Several round table discussions of the “seniors” were held during the meeting, with the general aim of reviewing common problems and possible strategies for solving them. It turned out that although we live in countries which are geographically close to each other, we miss a very simple thing: exchange of information about activities, achievements, problems and their solutions in astronomy (and related sciences) in our countries.

During the meeting, the idea proposed by Vladan Čelebonović, to create an electronic “information letter”, with the aim to establish a quick, efficient and cheap channel for information exchange between all those engaged in some form of space related research in our countries, was accepted. The idea was realized and the Information Letter on Balkan Astronomy (ILBA) – Editors M. Tsvetkov and V. Čelebonović served to the astronomical community as a source of informations about important astronomical events in the Balkan region [8].

4 The Third Bulgarian–Serbian Astronomical Conference

The Third Bulgarian-Serbian astronomical meeting was held in May 13-15, 2002 at Gjolechitsa in Bulgaria. The co-chairmen were Prof. Dr. Georgi Ivanov from Sofia University and Dr. Milan S. Dimitrijević – Director of the Belgrade Astronomical Observatory. The “driving force” on the Bulgarian side was Department of Astronomy, Sofia University. The Gjolechitsa resort house was property of the Sofia University and all of us enjoyed the warm hospitality of the local staff.



Figure 5. Participants during the third Bulgarian-Serbian astronomical meeting in Gjolechitsa.

There were about 30 persons present. Scientifically, we heard 4 invited lectures, and could read about 30 posters. Posters were presented in a interesting way: they were put-up, so as to render them visible to all, but apart from that every poster was presented orally for 5-6 minutes. What is more, the languages “allowed” were the two national languages: Bulgarian and Serbian, with insertion of English words only in cases of extreme necessity. This system of presentation was started since the first meeting, and has proved its efficiency – it provokes discussion, which is finally the basic aim of any scientific meeting.

On the social side, it was a great pleasure to reinforce old friendships and make new ones. The excursion to the Maljovitsa tourist center, and scientific discussions under the high-altitude sun contributed to the success of the meeting. Resumed in one word, the general impression on this meeting is: success. The most participants had one joint objection – it was too short.

The proceedings with 34 articles were published in the Publications of Astronomical Observatory of Belgrade Vol.73, 1-286 [9].

5 The Fourth Bulgarian–Serbian Astronomical Conference

From 21 to 24 April 2004, in Belgrade was organized the Fourth Serbian – Bulgarian astronomical conference. Organizers were Astronomical Society “Rudjer Bošković” and Belgrade Astronomical Observatory and Co-chairmen of the



Figure 6. Participants during the fourth meeting

SOC M. S. Dimitrijević and Valeri Golev [10]. There were 28 Serbian, 19 Bulgarian and 2 German astronomers and physicists. Guests from Bulgaria were Georgi Ivanov, Valeri Golev, Radostin Kurtev, Anelya Staneva and Petar Pesev from Department of Astronomy of Sofia Faculty of Physics; Milcho Tsvetkov, Katya Tsvetkova, Konstantin Stavrev, Vasil Popov, Momchil Dechev, Toni Valchanov, Mariana Panayotova and Lyuba Slavcheva-Mihova from Institute of Astronomy of BAS, as well as Svetlin Fotev, Hristo Lukarski, Rumen Bogdanovski, Damian Kalaglariski and Daniela Andreeva from Space Research Institute of BAS. Gothard Richter and Petra Boehm from Potsdam Astrophysical Institute attended the conference too.

On the Conference, held in the Solemn hall of the Faculty of Mechanical Engineering in Belgrade, 16 invited lectures and 29 posters were presented. On the opening were vice-ministers for Science and Environmental Protection, Aleksandar Belić and Aleksandar Sedmak, and the first secretary of the Bulgarian embassy, Stoyan Stankulov. The conference was opened with two lectures presenting achievements of Serbian and Bulgarian astronomy. The review of Bulgarian cosmical achievements (two cosmonauts and a number of devices and experiments) by Petar Getsov, was presented by Milcho Tsvetkov. On the discovery that Achernar is the most oblate star, spoke Slobodan Jankov, one of coauthors. The excursion was organized to Smederevo fortress and Vršac, where we were received in the solemn hall of Town Hall build in 1723, by the Lord Mayor

Milorad Djurić. City-Sightseeing was organized by Dejan Maksimović. We visited Vladika's court from 1757, the cathedral St. Nikola from 1785, the oldest serbian pharmacy from 1784, where can be seen also the collection of the famous Serbian painter Paja Jovanović, who during his long life made portraits of the emperor Franz Joseph, king Aleksandar and president Tito. The participants also visited Mesić monastery and Vršac's tower on the Vršac's hill. Proceedings were published as Publications of the Astronomical Society "Rudjer Bošković", Vol. 5 [11].

Finally we would like to mention again the success of this joint initiative between astronomers in both neighbouring countries, separated mostly artificially, due to political reasons, last century. This conference was very useful for the further development of mutual collaboration, planning of common investigations and joint projects, using the facilities of the National Astronomical Observatory Rozhen, equipped with 2-m RCC telescope and Belogradchik Observatory. The number of pages of the proceedings of the fourth conference increased more than three times in comparison with the first one, and it is refereed in ADS [12].

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