PROCEEDINGS OF SCIENCE

Concluding Remarks

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Traditionally there are four persons making the concluding remarks of the conference, so I restricted myself by the 1-st part when we discussed the CVs. I am pleased to note that the scientific level of our meeting has been quite high. I have heard all 49 talks on CVs and I would like to stress the very good organization of the conference program, which, in particular, appeared as a balanced number of reviews and contributed talks.

The Golden Age of Cataclysmic Variables and Related Objects - III, Golden2015
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[†]A footnote may follow.

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1. My Personal Point of View

I was really impressed by the review talks made by Franco Giovannelli & Lola Sabau-Graziati, Joseph Patterson, Solen Balman, Stella Kafka, Koji Mukai, Jordi Isern, Petrus Meintjes, Christian Knigge, Simone Scaringi, Edward Sion, Yukikatsu Terada, Deanne Coppejans, Paul Mason, Elme Breedt, Anna Francesca Pala, and Linda Schmidtobreick. All these talks contain the absolutely comprehensive material available today on the discussed problems. I do not reproduce their content, since all of them can be found in this book of proceedings, but I want to note that any researcher, studying CVs, independently on the age and scientific status, will find them useful. The contributed talks have been well prepared and delivered, and the reader may see it when reading the papers in the book of proceedings. I do not want to focus on a particular work - since I hope that the reader will first get familiar with the original papers but not these concluding remarks - however, I would like to focus on one of the important problems addressed in the talks. This is the problem of the accretion physics raised by Christian Knigge and Simone Scaringi, and mentioned in many other talks.

Accretion is a universal phenomenon that takes place in the vast majority of astrophysical objects. The progress of ground-based and space-borne observational facilities has resulted in the great amount of information on various accreting astrophysical objects, collected within the last decades. The accretion is accompanied by the process of extensive energy release that takes place on the surface of an accreting object and in various gaseous envelopes, accretion disk, jets and other elements of the flow pattern. The results of observations inspired the intensive development of accretion theory, which, in turn, enabled us to study unique properties of accreting objects and physical conditions in the surrounding environment. One of the most interesting outcomes of this intensive study is the fact that accretion processes are, in a sense, self-similar on various spatial scales from planetary systems to galaxies. This fact gives us new opportunities to investigate objects that, by various reasons, are not available for direct study. Cataclysmic variable stars are unique natural laboratories where one can conduct the detailed observational study of accretion processes and accretion disks. This is the main reason why several participants and a few members of the Organizing Committee of the conference "The Golden Age of Cataclysmic Variables and Related Objects - III" (September 7-12, 2015, Palermo, Italy) have decided to hold a special conference, focused on accretion processes, as a branch of that series. [1]

Another point, I would like to mention, is a perspective of CV topics. It seems that now we have reached some balance between theory and observations in the subject. Unfortunately, it means that we have lost the driving mechanism for further development. It is very dangerous, because at present, we have a lot of hard competition between topics in astronomy, and frankly speaking we are not the winner in this race. So, to live in a "golden age" we should search for some new problems that can compete with fashionable topics such as exoplanets, dark energy, dark matter, etc. Of course, all of us are trying to introduce something new. But to survive and continue with our studies of CVs we should join efforts. We should more intensely collaborate and support any bright ideas.

[1] The conference under the title *"Accretion Processes in Cosmic Sources: Young Stellar Objects, Cataclysmic Variables and Related Objects, X-ray Binary Systems, Active Galactic Nuclei"* was held in Saint Petersburg, Russia, 5-10 September, 2016.

2. Conclusions

Resuming my concluding remarks I would like to stress that the conference was not only interesting, but also useful. I thank the organizers of the conference not only for the nice time, spent in the marvelous place, but also for the opportunity to discuss all the results in the friendly atmosphere. As I found when talking with many participants, we all are interested in the continuation of this series of meetings and in making this conference recurrent. Franco Giovannelli & Lola Sabau-Graziati and their team are the main engine of the conference and I hope that they will continue this hard job, the organization of CVs conferences.