

X SERBIAN-BULGARIAN ASTRONOMICAL CONFERENCE

May 30 - June 3, 2016, Belgrade, Serbia

A. Kovačević¹, M. S. Dimitrijević², Z. Simić², L. Č. Popović^{1,2}, N. Bon²

¹ Department of Astronomy, Faculty of Mathematics, University of
Belgrade, Serbia

² Astronomical Observatory Belgrade, Serbia,

Chronology of Serbian-Bulgarian Series of Conferences

| Број Конф. | I | II | III | IV | V | VI | VII | VIII | IX | X |
|-------------------|---|---|---|--|---|---|--|--|--|--|
| Место | Београдчик | Зајечар | Гјолечитса | Београд | Софија | Београд | Чепеларе | Лесковац | Софија | Београд |
| Време | 05-08.08. 1998 | 23-26.06. 2000 | 13-15.05. 2002 | 21-24.04. 2004 | 09-12.05 . 2006 | 07-11.05. 2008 | 01-04.06. 2010 | 08-12.05. 2012 | 02-04.07. 2014 | 30.05-03.06. 2016 |
| Зборник радова | Publ. Astron. Obs. Belgrade No.64 | Publ. Astron. Obs. Belgrade No.67 | Publ. Astron. Obs. Belgrade No.73 | Publ. Astron. Soc. "Rudjer Boskovic", No. 5 (2005). | Bulg. Jour. of Phys., vol. 34, No2,(2007) | Publ. Astron. Soc. "Rudjer Bošković", No. 9 (2009) | Publ. Astron. Soc. "Rudjer Bošković", No. 11 (2012) | Publ. Astron. Soc. "Rudjer Bošković", No. 12 (2013) | Publ. Astron. Soc. "Rudjer Bošković", No. 15 (2015) | Astronomy and Astrophysical Transactions |

1 - Belogradchik, 1998.



2 - Zaječar, 2000



3 - Gjolechitsa, 2002.



4 - Belgrade, 2004.



Photos from prof Milcho Tsvetkov ppt

5 - Sofia, 2006.



6 - Belgrade, 2008.



7 - Chepelare, 2010.



8 - Leskovac, 2012.



Photos from prof Milcho Tsvetkov ppt

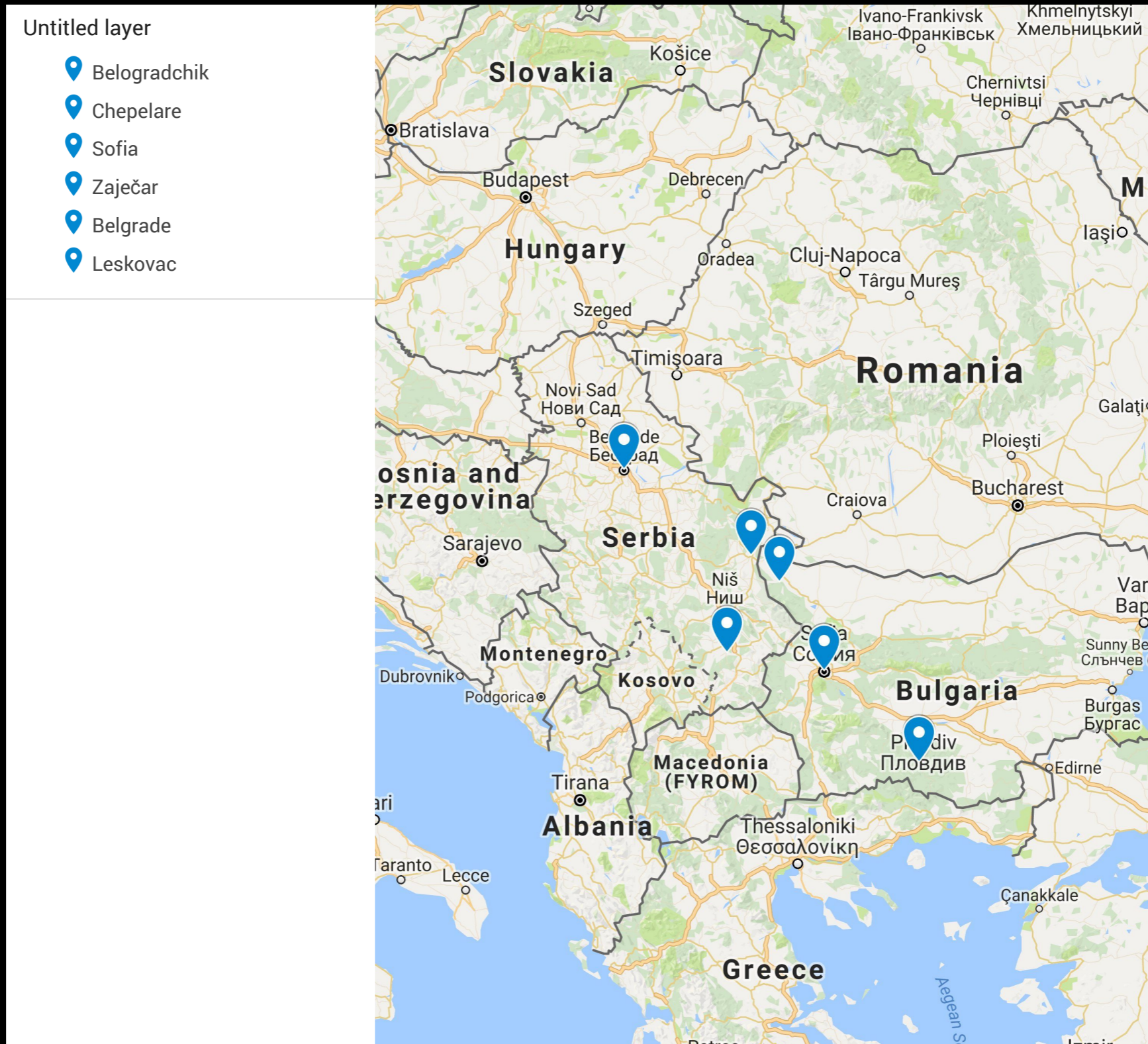
9 - Sofia, 2014.



10 - Belgrade, 2016



Geographical distribution SBAC Series



X SERBIAN-BULGARIAN ASTRONOMICAL CONFERENCE

May 30 - June 3, 2016, Belgrade, Serbia

- [HOME](#)
- [ABSTRACTS](#)
- [PRESENTATIONS](#)
- [SOC & LOC](#)
- [PROGRAMME](#)
- [AUTHORS' INDEX](#)
- [PARTICIPANTS](#)
- [PHOTOS](#)

CIP

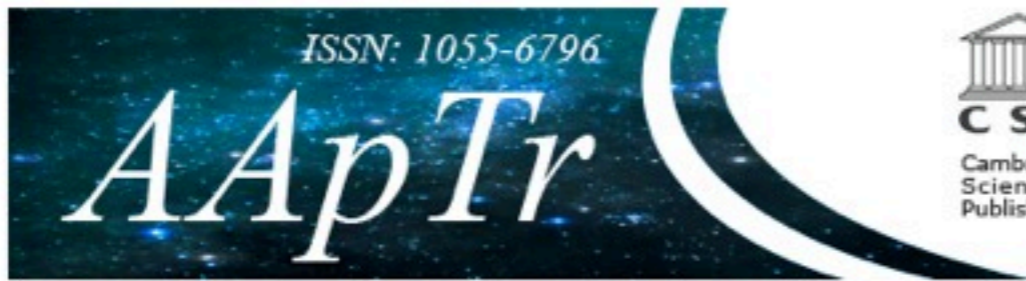
Eds. Milan S. Dimitrijević and Milcho K. Tsvetkov

Organizers:

Astronomical Observatory, Belgrade, Serbia
Institute of Astronomy with National Astronomical Observatory, BAS, Bulgaria

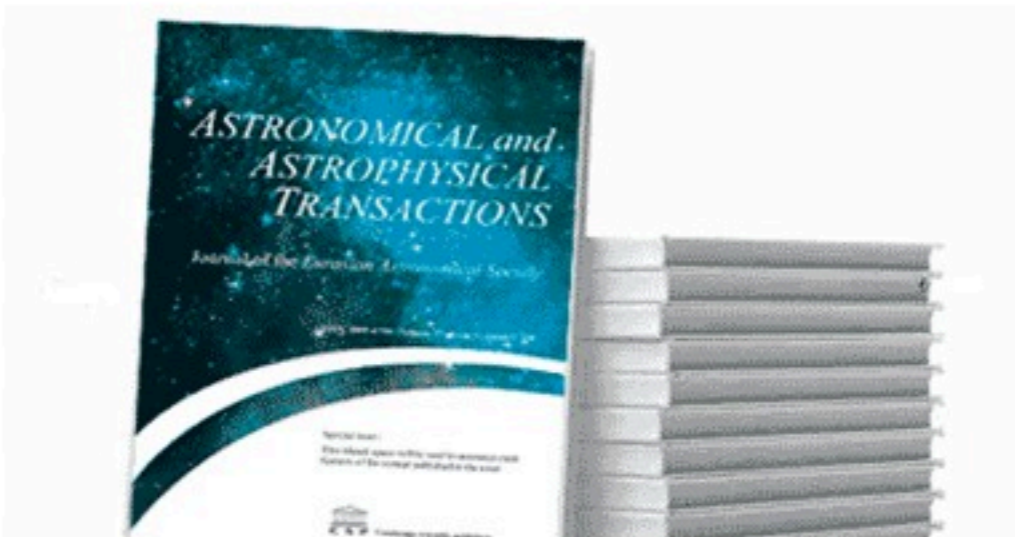
Co-organizers:

Faculty of Mathematics and Department of Astronomy, University of Belgrade
Faculty of Civil Engineering, University of Belgrade
Institute of Mathematics and Informatics of the Bulgarian Academy of Sciences



Connexion

HOME ARCHIVES ABOUT SUBSCRIPTIONS



Astronomical and Astrophysical Transactions (AApTr) journal is being published jointly by the [Euro-Asian Astronomical Society](#) and [Cambridge Scientific Publishers](#). The journal provides a forum for the rapid publication of material from all modern and classical fields of astronomy and astrophysics, as well as material concerned with astronomical instrumentation and related fundamental sciences. It includes both theoretical and experimental original research papers, short communications, review papers and conference reports.

ISSN (print): 1055-6796 / ISSN (online): 1476-3540

Publication Frequency: One volume per year, 4 issues per volume.

Current issues: Volume 29, Issue 2

Submission: Authors are requested to submit their papers electronically to aaptr@sai.msu.ru stating the journal title (AApTr) in subject line. (Contributions to *Astronomical and Astrophysical Transactions* are published free of charge. All papers are subject to rigorous refereeing/peer review and the page extent of papers is not limited. Pages in colour, in both online and printed editions, are published free of charge.) Published papers in AApTr are given in *Astronomical Data Service (ADS)* of SAO/NASA (adsabs.harvard.edu). *Astronomical and Astrophysical Transactions* is abstracted/indexed in *INSPEC* and also in *Chemical Abstracts*. After acceptance of papers, the AApTr journal automatically acquires copyright for all papers.

Scientific Organizing Committee

Milan S. Dimitrijević (Co-chairman), Astronomical Observatory, Belgrade, Serbia

Milcho K. Tsvetkov (Co-chairman), Institute of Astronomy with NAO, BAS, Sofia, Bulgaria

Andjelka Kovačević (Co-vice chairperson), Department of Astronomy, Faculty of Mathematics, Belgrade, Serbia

Zoran Simić (Co-vice chairman), Astronomical Observatory, Belgrade, Serbia

Robert Beuc, Institute of Physics, Zagreb, Croatia

Svetlana Boeva, Institute of Astronomy, BAS, Sofia, Bulgaria

Momchil Dechev, Institute of Astronomy, BAS, Sofia, Bulgaria

Dragana Ilić, Department of Astronomy, Faculty of Mathematics, Belgrade, Serbia

Darko Jevremović, Astronomical Observatory, Belgrade, Serbia

Ognyan Kounchev, Institute of Mathematics and Informatics, BAS, Bulgaria

Jelena Kovačević Dojčinović, Astronomical Observatory, Belgrade, Serbia

Milan Maksimović, Observatoire de Paris, Meudon, France

Anatolij Mihajlov, Institute of Physics, Belgrade, Serbia

Petko Nedialkov, Department of Astronomy, Sofia University, Sofia, Bulgaria

Nikola Petrov, Institute of Astronomy and National Astronomical Observatory, BAS, Sofia, Bulgaria

Luka Č. Popović, Astronomical Observatory, Belgrade, Serbia

Branko Predojević, Faculty of Sciences, Banja Luka, Republic of Srpska, Bosnia and Herzegovina

Nikolaj Samus, Institute of Astronomy (Russian Academy of Sciences) and Sternberg Astronomical Institute, Moscow, Russia and Euro-Asian Astronomical Society

Vladimir Srećković, Institute of Physics, Belgrade, Serbia

Katya Tsvetkova, Institute of Mathematics and Informatics, BAS, Sofia, Bulgaria

Jan Vondrák, Astronomical Institute, Academy of Sciences of the Czech Republic, Prague, Czech Republic

Local Organizing Committee

Zoran Simić (Co-vice chairman), Astronomical Observatory, Belgrade, Serbia

Andjelka Kovačević (Co-vice chairperson), Department of Astronomy, Faculty of Mathematics, Belgrade, Serbia

Scientific secretary: Nataša Bon, Astronomical Observatory, Belgrade, Serbia

Members

Jovan Aleksić, Astronomical Observatory, Belgrade, Serbia

Dragan Blagojević, Faculty of Civil Engineering, Belgrade, Serbia

Miodrag Dačić, Astronomical Observatory, Belgrade, Serbia

Milan S. Dimitrijević, Astronomical Observatory, Belgrade, Serbia

Dragana Ilić, Department of Astronomy, Faculty of Mathematics, Belgrade, Serbia

Jelena Kovačević Dojčinović, Astronomical Observatory, Belgrade, Serbia

Tanja Milovanov, Astronomical Observatory, Belgrade, Serbia

Vukan R. Ogrizović, Faculty of Civil Engineering, Belgrade, Serbia

Vojislava Protić Benišek, Astronomical Observatory, Belgrade, Serbia

Djordje Savić, Astronomical Observatory, Belgrade, Serbia

Vladimir Srećković, Institute of Physics, Belgrade, Serbia

XSBAC topics

EXTRAGALACTIC ASTRONOMY

SUN

ASTRONOMY IN CULTURE AND SOCIETY

ASTROINFORMATICS

ASTROMETRY

**LABORATORY ASTROPHYSICS, SPACE PLASMAS AND
FIELDS**

EARTH

STARS

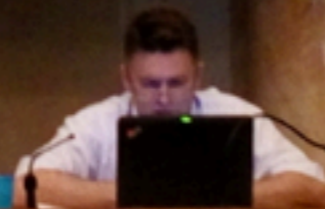
COSMOLOGY AND ISM





X SERBIAN-BULGARIAN ASTRONOMICAL CONFERENCE

Belgrade, 30. May - 3. June 2016.





INVESTIGATION OF SUB-PC AGN REGIONS AND GRAVITATIONAL LENSES WITH OPTICAL SPECTROPOLARIMETRIC METHOD



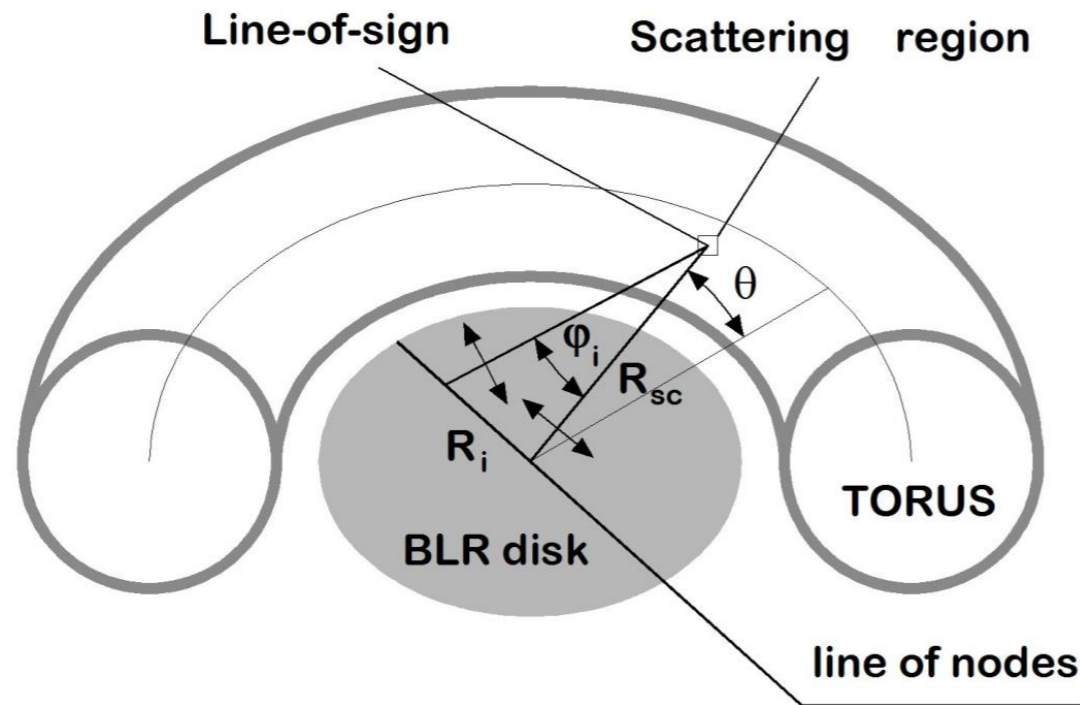
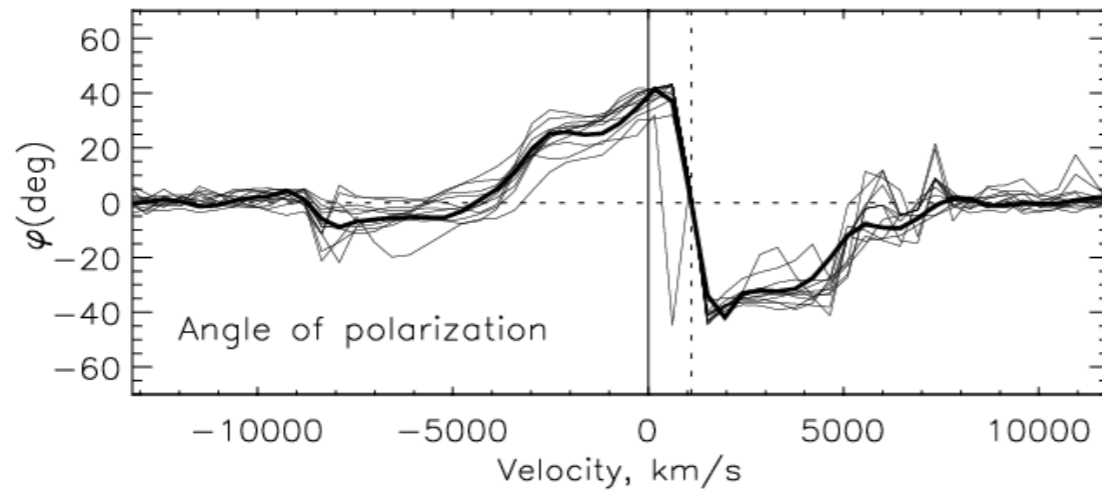
Victor L. Afanasiev & Luka. Č. Popović



X SBAC, Beograd
30. 05-03.06.2016

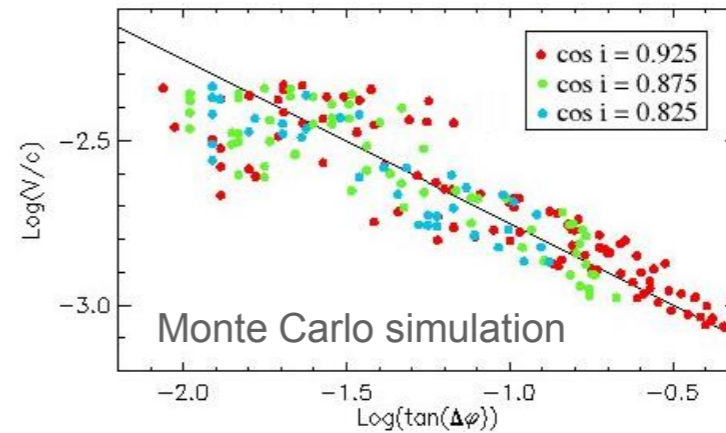
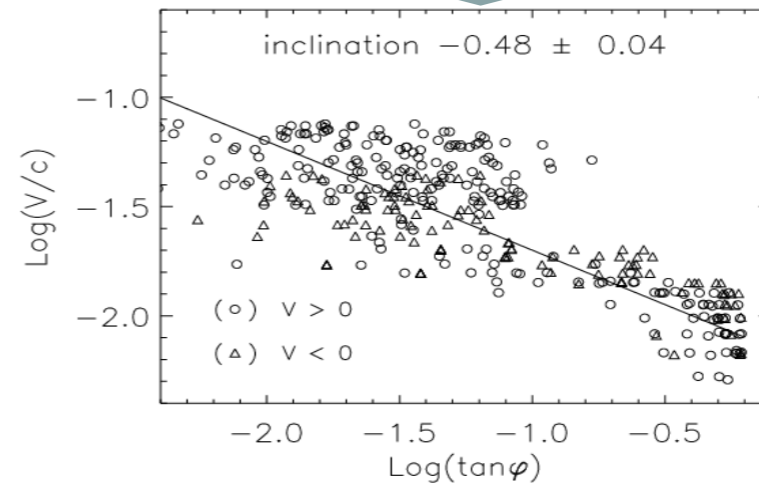


Rotation of the plane of polarization in the BLR



$$V_i = V_i^{\text{rot}} \cos(\theta) = \sqrt{\frac{GM_{\text{BH}}}{R_i}} \cos(\theta), \quad R_i = R_{\text{sc}} \cdot \tan(\varphi_i)$$

$$\log\left(\frac{V_i}{c}\right) = a - b \cdot \log(\tan(\varphi_i)), \quad a = 0.5 \log\left(\frac{GM_{\text{BH}} \cos^2(\theta)}{c^2 R_{\text{sc}}}\right)$$



Estimation M_{BH} does not depend of the inclination BLR



Network Methods for Big Data: Applications to Astroinformatics

Ognyan Kounchev

Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, IZKS-University
of Bonn

Supported by the Humboldt Foundation and Project between Serbian
and Bulgarian Academy of Sciences

X Serbian-Bulgarian Astronomical Conference, Belgrade, 2016



Possible Applications outside and in Astronomy

- Remote Sensing Network for Time-Sensitive Detection of Fine Scale Damage to Transportation Infrastructure
- Exploiting existing ground-based remote sensing Networks to improve High-resolution weather forecasts.
- Neural Network Applications in High-Resolution Atmospheric Remote Sensing
- Development of a Real Time Remote Sensing Network to Monitor Small Fluctuations in Urban Air Quality
- Network clustering by graph coloring: An application to **astronomical** images
- Astronomical image segmentation by Networks and wavelets
- **Machine learning method to analyse galaxy images**



Член Правления АстрО
Виктор Владимирович Орлов
3 октября 1956 г. – 23 мая 2016 г.

Проект повестки дня Правления АстрО 1 июня 2016 г. (Белград)

1. Н.Н. Самусь, В.Н. Обридко. Об истории АстрО и о работе АстрО в декабре 2015 – мае 2016 гг. 30 мин.
2. Л.Ч. Попович. Астрономия в Сербии и Белградское отделение АстрО. 20 мин.
3. D. Kyurkchieva, N. Petrov. Bulgarian astronomy: societies, observatories, equipment, tasks, successes, problems. 30 мин.
4. И.С. Брюханов. О преподавании астрономии, любительской и профессиональной астрономии в Белоруссии. 15 мин.
5. Н.Г. Бочкарев. О журнале “Astronomical and Astrophysical Transactions”. 15 мин.
6. О.К. Сильченко. О взаимодействии АстрО с Европейским астрономическим обществом. 10 мин.
7. М.Г. Гаврилов. Астрономические олимпиады 2015 года. 15 мин.
8. Н.Н. Самусь (по материалам, предоставленным В.М. Чепуровой). О выполнении решений Съезда и Правлений АстрО. 10 мин.
9. Н.Н. Самусь (по материалам, предоставленным В.М. Чепуровой). Прием новых членов АстрО.
10. Разное.

POSTER SESSION











