Third Announcement  
of the  
International Conference  

Binaries – Key to Comprehension  
of the Universe  

Brno, Czech Republic  

June 8—12, 2009  

In celebration of the 90th anniversary of the Masaryk University foundation and International Year of Astronomy, we are organizing a conference from June 8 to 12, 2009, in the estates of Masaryk University in the city of Brno, Czech Republic.

MEETING ORGANIZERS

- Department of Theoretical Physics and Astrophysics, Faculty of Science, Masaryk University, Brno, Czech Republic
- Astronomical Institute, Charles University, Prague, Czech Republic
- Astronomical Institute, Academy of Sciences of the Czech Republic, Ondřejov, Czech Republic
- Astronomical Institute of Slovak Academy of Sciences, Tatranská Lomnica, Slovakia

Co-operating institutions:

- Nicholas Copernicus Observatory and Planetarium Brno, Czech Republic
- Observatory and Planetarium of Johann Palisa, VŠB - Technical University of Ostrava
- Czech Astronomical Society (represented by Variable Stars and Exoplanets Section)

The conference is sponsored under the auspices of the rector of Masaryk University, Petr Fiala and the governor of South Moravian region, Michal Hašek.
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CONFERENCE CITY - BRNO:

Brno is the largest city of Moravia and an important tourist centre for all who want to explore natural and cultural beauties of the South-Moravian region. The city is surrounded by beautiful mixed forests that offer many opportunities for tourism and cycling. Today, Brno is a seat of universities and important judiciary institutions. It offers many possibilities for cultural enjoyment in its numerous theatres, museums, cinemas and clubs. (for more information visit http://www.brno.cz/index.php?lan=en).


TRAVEL INFORMATION:

How to reach Brno
Brno can be reached easily by direct trains from Prague, Vienna, Bratislava, and Budapest. You can travel by plane to Vienna and then by coach or train (130 km). Another possibility is to travel by plane to Prague and then travel about 200 km by plane, coach or train.

Arriving by Plane
There are direct flights to the Brno airport from Prague, London and Moscow. The nearest large international airports are Vienna (130 km) and Prague (200 km). They provide good train/bus connections to Brno; some airlines even offer direct bus transport to Brno from the airport. Ask your travel agent for this option when buying your plane ticket.

How to get from the Vienna Airport to Brno:
1. There are direct bus lines from Vienna to Brno (Wien-Brünn); however, you need to book the seat in advance. It is possible to acquire reservation via internet and sometimes they have free seats; it is also possible to buy the ticket on the bus.

2. If you want to travel by train, you can purchase a ticket at the railway station. You need to go from airport to the Südbahnhof railway station. There are Vienna Airport Lines (airport service runs
How to get from the Prague Airport to Brno:

1. Czech airlines offer short 50 min flights from Prague to Brno.

2. Another option is traveling by bus. There are direct bus lines from the Prague airport to Brno. Student Agency buses (recognizable by the yellow color) depart from the Prague airport every hour from 7:35 to 21:35. It is possible to book a seat in advance via internet, but also to buy the ticket on the bus. The price is 250 CZK.

3. The last possibility is to travel by a regular bus or by train. However, you need to take care of the transit from the airport to the railway/bus station by public transport.

Prague-Brno Timetables for June 7th, 2009:
   a) Bus Timetable.
   b) Train Timetable.

Arriving by Car

Brno is located in the southwest part of the Czech Republic, on the D-1 backbone motorway Prague-Brno-Bratislava, and on the rail-road line Prague-Brno-Vienna. The nearest international airports are Vienna and Prague. It takes about 120 minutes to get to Brno from Vienna, and 150 minutes from Prague. Use exit 190 when leaving the motorway from Prague.

Notes:
1) If you want to use a Czech highway, you must buy a stamp (CZK 220 for 7 days, CZK 330,- for 1 month).
2) For a map of the Czech Republic see Maps CZ or Maps Google.

Arriving by Train

Brno can be reached easily by direct EC/SC trains from Prague, Vienna, Bratislava and Budapest. You may find train connections which suit you best by using the on-line timetable service. For railway or bus connections the actual information may be found at:
   a) Bus and Train Timetables
   b) Train Timetable.

In general: consult the following links for railway or bus connections.

In Brno: How to Reach the Hotel and Conference Venue

Hotel Continental: You can take tram No. 4,5,12,13 from the main railway station to the "Česká" stop (the third stop) and then walk about 300 m to the hotel Continental. You will need to purchase one ticket for 14 CZK. It might be easier to take a taxi, however please take into account that the distance is about 2 km from the bus station (from Vienna) or railway station to the hotel Continental. The cab fare should be about 100-150 CZK (40 CZK to start the meter and then about 30 CZK per kilometer). Unfortunately, Czech taxi drivers have a bad reputation (especially in Prague), that's why we warn you about the price.
UNI Hostel Garni: You can take tram No. 1 from the main railway station to the stop Lipová. You need one ticket 18 CZK. See map.

CONFERENCE VENUE:

Faculty of Science

The Faculty of Science at Masaryk University is situated at Kotlarska street 2. It is about 800 m from the hotel Continental. Veer right from the hotel and turn left at the light after about 800 m; after several metres you will reach the main entrance of the Faculty of Science.

From the student hostel you can use trolley lines No. 25, 26 from Lipová to the Konečného náměstí stop. From the stop continue in the same direction along the brown fence (paling) and you will reach the main entrance to the Faculty of Science in around 100m.

WEATHER CONDITIONS:

Summer weather in the Czech Republic typically covers the period from June through mid-September. Czech summers are usually mild (20-27°C/70-80°F) and somewhat humid, with the highest temperatures rising to 30-35°C/85-95°F (occasionally even higher) for short periods. Such heat waves can be expected mostly in July and August. Sudden showers and thunderstorms are common, so bring an umbrella or be prepared to dash for cover.

ACCOMMODATION, MEALS:

We hope that all participants have already arranged for their accommodation in Brno. If not, please contact hotel Continental immediately (for instructions please consult the conference webpage) or contact the organizers.

Lunches will be provided in the student canteen of the Faculty of Science for the first day only. For the following days participants can order one of the three possibilities for 90 CZK. Of course, you can use restaurants in the surrounding areas as well. The average price of the main course will be about 100 CZK.

REGISTRATION:

Registration will be open on Monday from 7:30 am at the auditorium of Faculty of Science. Please do not come just before 9 am....

PAPERS:

Working language is English.

The time allocated for the invited review paper is 40 min + 5 min for discussion, while the time allowed for the contributed paper is 15 min + 5 min for discussion. The speaker can use local computer (Windows) or
his/her laptop, and the overhead projector. We ask all speakers to make certain that their talks actually work (copy and check your presentation in advance). Our technicians will help you.

We invite presenting your contributions on poster displays (the oral presentation duration is 2 minutes max). The recommended poster size is A1 or A0.

Oral contributions and posters will be published as a special issue of the ASP Conference Series. The necessary style together with instructions for authors is available at our conference webpage http://astro.physics.muni.cz/binkey/conference/language-papers/. Please take into account that ASP will want the American letter format instead of A4 format. The limits for conference contributions are: 10 pages for invited papers, 4 pages for contributed papers, and 2 pages for posters.

The deadline is August 31, 2009.

SOCIAL EVENTS

Monday - 19:30 The Welcome reception – Office building of the South Moravian Region, Cejl 73, Brno - refreshments, jazz music


Wednesday – 14:00 Excursion: Museum of J.G.Mendel (http://www.mendelmuseum.muni.cz/en/), Starobrno brewery – due to limited capacity participants must be split into smaller groups for tours that start every 30 minutes. Please choose a group and sign in the form at the registration desk.

18:00 – Public outreach - E. Guinan - N. Copernicus Observatory and Planetarium, Kravi hora, Brno, 15 min walk from Faculty of Science

Thursday – 19:30 Closing reception – Botanical garden, Kotlarska 2, Brno – refreshments, folk music, wine tasting

Other events in Brno:

April – June 15 Exhibition „Universe-adventure of discoveries“ – large size astrophoto in the street (Malinovskeho namesti)

May 22 - June 5 International Fireworks Festival with musical accompaniment

May 31 - Sept. 28 Sculptures in streets – Brno Art Open 2009

June 5 - 7 Amusements under ramparts – festival for everybody

June 5 - 7 Traffic nostalgia – exhibition of history of public transport ; 140 years of public transport in Brno

June 6 - 14 International fair AUTOSALON Brno 2009 - car exhibition

June 7 Folksy castle party – entertainment at Spilberk castle

June 10 19:30 Claus-Erhard Heinrich: organ concert – St. Augustin church, Náměstí míru, Brno (end station of tram line 4; just under the hill with planetarium)

We look forward to meeting you in Brno next week

Jan Janík, Miloslav Zejda
chairpersons of LOC

Andrei Prša
chairperson of SOC
PRELIMINARY (BUT ALMOST FINAL!) SCHEDULE:

**Monday, June 8**
08:45 Opening Remarks
09:00 Guinan: Review of novel EB approaches/results
09:45 Maceroni: The CoRoT light curves: a goldmine for binary research
10:05 Matijević: Binary Detection and Parameter Estimation in the Automated Spectroscopic Surveys
10:25 Pietrzynski: Precise distances to the Magellanic Clouds from the unique late-type long-period eclipsing binaries
10:45 coffee break
11:15 Tokovinin: Instrumentation and Missions in the 21st Century
12:00 Tsantilas: Introduction to VSAA - the method of Variable Sine Algorithmic Analysis and its applications to active binaries
12:20 Mennekens: The delay time distribution of type Ia supernovae: comparison between theory and observation
12:40 lunch
14:00 Wilson & Van Hamme: Eclipsing Binary Modeling in the 21st Century
14:45 Devinney: Artificial Intelligence in Astronomy
15:05 Budaj: Shellspec - a code for modelling the spectra and lightcurves of interacting binaries
15:25 Longhitano & Binggeli: The widest binary stars: A statistical approach
15:45 coffee break
16:15 Rucinski: David Dunlap Observatory program of short-period binary spectroscopic orbits
17:00 Borkovits: Interferometric observations of the hierarchical triple system Algol
17:20 Kawka: Common proper motion white dwarf companions to bright Hipparcos stars
17:40 poster review
19:30 conference reception

**Tuesday, June 9**
09:00 Eggleton: Formation and Evolution of Binaries and especially Triples
09:45 Suda: Pan Binary Scenario for the Origin of Extremely Metal-Poor Stars in the Galactic Halo
10:05 Kouwenhoven: The formation of very wide binaries
10:25 Kisseleva-Eggleton: Further Evidence for Evolution by Kozai Cycles and Tidal Friction
10:45 coffee break
11:15 Vanbeveren: Binaries and Stellar Population Synthesis
12:00 Mennickent: Double Periodic Variables
12:20 Nanouris: Probing evolutionary trends in close binaries from observed period changes
12:40 lunch
14:00 Pavlovski & Hensberge: Spectroscopic analysis of binary stars
14:45 Škoda & Hadrava: Fourier Disentangling Using Technology of Virtual Observatory
15:05 Torres: The Hyades binary Theta 2 Tauri: a new spectroscopic orbit and orbital parallax
15:25 Richards: Applications of Doppler Tomography in 2D and 3D
15:45 coffee break
16:15 Piironen: Polarimetric analysis of binary stars
17:00 Katajainen: Polarization in Soft X-ray Intermediate Polars
17:20 de Mink: A new evolutionary scenario for the formation of close massive black hole binaries such as M33 X-7
17:40 poster review

20:00 **concert in planetarium**

**Wednesday, June 10**

09:00 van den Berg & Cherepashchuk: X-Ray Binaries
09:45 Gális: Hard X-ray Emission of Intermediate polars
10:05 Bonneau: Spectro-interferometric observation of interacting massive stars with VEGA/CHARA
10:25 Samus Eclipsing stars among variables discovered using scans of the Moscow plate stacks
10:45 **coffee break**

11:15 Bonanos: Extragalactic and High Mass Binaries
12:00 Vilardell: Properties and distances of eclipsing binaries in the Andromeda Galaxy
12:20 Drechsel & Nesslinger: Accurate fundamental parameters of five OB-type binaries in the SMC
12:40 **lunch**

14:00 Rauw & Pols: Evolution and Colliding Winds in Massive Binaries
14:45 Kraus: Catching the binaries amongst B stars
15:05 poster review

15:30 **conference excursion**
18:00 Guinan: Our Sun - Effects on Climate and Life (public talk, planetarium)

**Thursday, June 11**

09:00 Hubrig: Chemically Peculiar Binaries
09:45 Soydugan: New discovered pulsational components in Algol type binaries and their positions on the plane of Porb - Ppuls
10:05 Skopal: Symbiotic stars from high to low energies
10:25 Friedjung: Shifts of ultraviolet lines of symbiotic binaries
10:45 **coffee break**

11:15 Mkrtichian: Intrinsically Variable Components in Binaries
12:00 Pazhouhesh: A CCD Photometric Search for Pulsations in RZ Dra and EG Cep
12:20 Mars: The intrinsic variations of bright stars in NGC 7160
12:40 **lunch**

14:00 Bisikalo: Hydrodynamics of Cataclysmic Variable Stars
14:45 Swierczynski: Nova V2467 Cyg as possible intermediate polar
15:05 Djurasević Accretion disks in massive binary systems
15:25 Vennes: Properties and evolution of post-common envelope binaries
15:45 **coffee break**

16:20 Jurkić: Modelling of Circumstellar Dust around Symbiotic Miras in Infrared
16:40 Çiçek: Cool active binaries recently studied in the CAAM stellar programme
17:00 Selam: Precise Radial Velocity Measurements - Key to Discover Low-mass Companions and
Exoplanets Around Stars
17:20 Röll: Search for sub-stellar companions in low-mass binaries via high precision relative astrometry
17:40 poster review

20:00 closing reception

Friday, June 12
09:00 Gałan: Multi-ring structure of the eclipsing disc in EE Cep - possible planets
09:20 Petr-Gotzens: Protoplanetary disks of TTauri binaries in Orion: Prospects for planet formation
09:40 Ramm & Hearnshaw: nu Octantis: a close binary with a possible planet
10:00 Pritchet: The Nature of Type Ia Supernovae and Implications for the Properties of Binaries
10:20 coffee break

11:10 Shugarov: The outburst activity of classical novae V2467 Cygni and V2468 Cygni
11:30 Chadima: The mysterious eclipsing binary epsilon Aurigae
11:50 Mikulášek: HD 143 418 - an interacting binary with a subsynchronously rotating primary
12:10 Volkov & Volkova: The Unique Triple System V577 Oph, 20 Years of Observations
12:30 lunch

13:30 Quinn: Probing Dark Matter with Very Wide Halo Binary Stars
13:50 Sirotkin: About the distribution of WD masses in superhump systems
14:10 poster review

14:30 Closing remarks