# Second Announcement of the International Conference

# Living Together: Planets, Host Stars and Binaries

Litomyšl, Czech Republic

September 8—12, 2014

(http://astro.physics.muni.cz/kopal2014)

In celebration of the 100th anniversary of prof. Zdeněk Kopal birth, we are organizing a conference from September 8 to 12, 2014, in his hometown Litomyšl, 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:

- Czech Astronomical Society (represented by <u>Variable Stars and Exoplanets Section</u>)
- European Training Centre (ETC) Litomyšl
- <u>Litomyšl Castle Hill</u>

#### PROGRAM TOPICS

- Evolution of angular momentum: Formation of binary stars and of planetary systems.
- Detection of planetary systems. New techniques and new results.
- Results from the space missions for binary stars and exo-planets.
- Evolution of planetary systems. Stability of planetary systems and planetary migrations.
- Internal structure of planets. Planetary atmospheres.
- Planetary systems in binary stars.
- Unsolved problems in structure and evolution of binary stars.
- Directions for further research in binary stars and exo-planets.
- Zdeněk Kopal and his legacy.

# **INVITED SPEAKERS:**

Michal Křížek: Zdeněk Kopal, the numerical analyst
 Ed Budding: Zdeněk Kopal: Astronomer and Teacher

Matthew Bate: Origins of the statistical properties of binary systems
 Maciej Konacki: Planets in binary-star systems: the ground-based effort

Jeremy Leconte: Internal structure of extrasolar planets and the link to their host star
 Gregory Feiden: Eclipsing binaries as tests of low-mass stellar evolution theory

• Alceste Bonanos: New results on very massive binaries

Bill Welsh: Circumbinary planets observed by the Kepler satellite mission

Tsevi Mazeh: Kepler binaries

• Pawel Artymowicz: Formation of binary stars and planets

• Nader Haghighipour: Formation and evolution of planets in and around binary stars systems

Andrej Prsa: Eclipsing binary light-curve modelling after the Kepler mission

Jerry Orosz: Triple stars observed by the Kepler satellite mission
 Kelly Hambleton: Heartbeat Stars and Tidally Induced Pulsations
 John Southworth: Observational studies of transiting planets

Laurent Eyer: Early results from the GAIA mission

# SCIENTIFIC ORGANIZING COMMITTEE (SOC):

Chair: Slavek Rucinski (University of Toronto, Canada)

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   Keele University, United Kingdom
- Guillermo Torres (<u>gtorres@cfa.harvard.edu</u>)
   Harvard-Smithsonian Center for Astrophysics, Cambridge, USA
- Miloslav Zejda (co-Chair)(<u>zejda@physics.muni.cz</u>)
   Department of Theoretical Physics and Astrophysics, Masaryk University, Brno, Czech Republic

# LOCAL ORGANIZING COMMITTEE (LOC):

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## **CONTACT ADDRESS:**

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WWW: <a href="http://astro.physics.muni.cz/kopal2014">http://astro.physics.muni.cz/kopal2014</a>

# CONFERENCE CITY - LITOMYŠL:

The East Bohemian town of Litomyšl was founded in the 13th century on the site of an older fortified settlement on the Trstenice path - an important trading route linking Bohemia and Moravia. The dominant feature of Litomyšl is the monumental Renaissance castle dating from the years 1568-1581. The buildings of the castle are not only exceptional for their architectural refinement, but have also inscribed themselves in history as the birth place of the Czech national composer, Bedřich Smetana. On the elongated square, which is one of the largest in the Czech Republic, a town hall of Gothic origin and a series of Renaissance and baroque houses are found, many of them with arcades and vaulted ground floor rooms. One of the most important of these is the House At the Knights (U Rytířů) with its remarkable facade. In the past, the town was also a significant religious centre; it was in Litomyšl in 1344 that the second bishopric to be established in Bohemia was founded.

The cultural traditions of the town go much beyond regional and national frontiers. The exquisite interiors of the castle, especially the baroque castle theatre, the amphitheatre in the castle park and Smetana's house, all offer varied programmes of concerts and theatrical performances and thus enrich the life of the town throughout the year. Litomyšl came to the public notice in a political context as well: in 1994 the meeting of the seven Central European presidents took place at the castle, and in 1995, the Spanish royal couple visited the town. The chateau complex was included in the UNESCO list of cultural monuments in 1999. Litomyšl was awarded the title "Historical town of the year 2000". For more information see <a href="https://www.litomysl.cz">www.litomysl.cz</a>.

Recommended tour in Litomyšl.

#### CONFERENCE VENUE:

The European Training Centre was established in the newly-reconstructed part of the Castle brewery and offers a pleasant environment not only for work events and training, but also for more festive events and meetings. It is located just next to the Castle Litomyšl.

#### TRAVEL INFORMATION:

#### In general:

For railway or bus connections the actual information may be found at Bus and Train Timetables

LitomyšI is located 150 km east of Prague, 85 km north of Brno, and 50 km south-east of Hradec Králové or Pardubice. There are two main possibilities of reaching the Czech Republic and LitomyšI by plane: Use either the airport in Vienna or in Prague and then continue from these two capitals.

#### 1. Prague – Vaclav Havel airport

connection to the Prague centre - Airport Express bus by <u>Czech railways</u> or <u>Prague public transport</u>.

Then you can continue to Litomyšl

- by bus from the main bus station Florenc or from the bus station Praha, Černý Most see time table
- by train to Česká Třebová, which is 12 km far away from Litomyšl search a train.

From Česká Třebová to Litomyšl we can arrange transport by private car or you can call taxi 15-20 minutes before your trip. The price is fixed at 300 CZK.

TAXI Phone number Payment TAXI Benátky +420 722 001 440, +420 722 001 5500 cash/card

TAXI Leva +420 602 178 401 cash
GRAND TAXI +420 733 264 264 cash
TAXI Peklo +420 775 770 200 cash

You can use also the bus transport from Česká Třebová – Litomyšl (approx. 15 km, 16 – 29 min). The bus station is located opposite the railway station building. The bus to Litomyšl is labelled LITOMYŠL on the front window. Get off at the bus stop LITOMYŠL – ZÁMEK (LITOMYŠL - CASTLE) which is about 20 metres from European Training Centre (ETC) building. The fare is 28 CZK per one way journey. Regular departures are listed here.

#### 2. Vienna airport

You can use Vienna airport in Austria even if you need to obtain a visa for the Czech Republic. However, you should apply for a Schengen visa which enables you to travel through the Czech Republic and neighbouring countries.

There are two bus companies with a direct connection from the Vienna airport to Brno. <a href="http://www.studentagency.eu/">http://www.studentagency.eu/</a> and <a href="http://www.tourbus.cz/">http://www.studentagency.eu/</a> and <a href="http://www.tourbus.cz/">http://www.studentagency.eu/</a> and <a href="http://www.tourbus.cz/">http://www.studentagency.eu/</a> and <a href="http://www.tourbus.cz/">http://www.studentagency.eu/</a> and <a href="http://www.tourbus.cz/">http://www.tourbus.cz/</a> (the last webpage only in Czech; there is only one bus per day at 17:00 from the airport). From Brno you can continue to Litomyšl by bus or by train - <a href="mailto:search bus or train">search bus or train</a>.

You can also travel to the railway stations Wien Meidling or Wien Hbf (Main station) using the public transport (City Airport Train, S-bahn or buses) - see time tables. Then one can go to Česká Třebová by train. From Česká Třebová to Litomyšl you can continue as described above.

#### Note:

There are also small regional airports: <u>Pardubice</u>, <u>Ostrava</u>, <u>Brno</u>, which offer connections to some destinations by means of low-cost airlines.

#### By car:

Litomyšl is situated on the A-road No. 35 (E442), which is of a good quality, but usually with high traffic volumes. If you want to use a Czech highway you must buy a vignette (CZK 310 for 10 days, CZK 440 for 1 month) - see details. In Litomyšl you can use many parking spaces (see map here).

#### WEATHER CONDITIONS:

The daily temperature of about +20°C (68°F) is typical for the late summer in September in the Czech Republic. During nights temperatures go down to +10°C (50°F). The short season of showers of rains can appear that time.

## ACCOMMODATION, MEALS:

Accommodation is offered via the conference registration webpage. In such case we can offer a bit lower prices for accommodation in the listed hotels. For simplicity the accommodation there is arranged only for the stay from September 7<sup>th</sup> (Sunday) to 12<sup>th</sup> (Friday). If you have any other request, please contact the organizers.

<u>Lunches</u> will be provided in the conference dining room which is next to the conference hall. The average price of the main course will be about 150 CZK.

# **REGISTRATION:**

Online registration is open via the conference webpage.

#### **Conference Deadlines**

Early registration: until June 30, 2014

Late Registration: July 1 - September 1, 2014

## Conference fee

The conference is self-funded.

The normal registration fee is **6000 CZK**, the late registration fee (after June 30, 2014) costs **7500 CZK**, and the reduced fee for accompanying persons is **2000 CZK**. The full registration fee includes coffee, admission to the reception, an excursion, a concert, an abstract booklet, and a copy of the proceedings. The reduced registration fee will only cover admission to the conference sessions, the reception and the concert. The current exchange rates are available at  $\frac{\text{Czech National Bank}}{\text{Czech National Bank}}$ , approximately it is 1 EUR  $\approx$  27.5 CZK / 1 USD  $\approx$  20.3 CZK.

#### Way of payment:

- online by credit card at registration (in case of any problem, please contact LOC)
- by bank transfer to conference bank account at European Training Centre 107-6654720207/0100
   IBAN CZ7401000001076654720207
   SWIFT code KOMBCZPPXXX
   (All fees necessary for bank transfer are paid by payer.)

All conference fees will be forfeited if cancellation of attendance and accommodation is received after 15th August 2014; 70 % of the fees will be paid back for cancellations received before or on 15th August 2014.

#### TALKS, PAPERS:

The working language of the conference will be English.

The time allocated for an invited review talk is 50 min + 10 min for discussion, while the time allowed for a contributed talk is 15 min + 5 min for discussion. The speaker can use a local computer (Windows) or his/her laptop. We ask all speakers to make certain that their talks actually work (upload and check your presentation in advance). Our technicians will help you.

We invite participants to present their poster contributions during the 2 minutes oral presentations. <u>The recommended poster size is **A1 or A0**.</u>

Oral contributions and posters will be published as a special issue of the ASP Conference Series.

The abstract submission deadline is August 1, 2014.

# PRELIMINARY PROGRAM:

18:30 Dinner

8-Sep 10:30 Ed Budding - Zdenek Kopal: Astronomer and Teacher 11:30 Michal Krizek - Zdenek Kopal: the numerical analyst 12:30 Lunch 14:00 Matthew Bate - Origins of the statistical properties of binary systems 15:00 contr. talks 1-3 16:00 Coffee break 16:30 contr. talks 4-6 17:30 Poster session	
<ul> <li>12:30 Lunch</li> <li>14:00 Matthew Bate - Origins of the statistical properties of binary systems</li> <li>15:00 contr. talks 1-3</li> <li>16:00 Coffee break</li> <li>16:30 contr. talks 4-6</li> </ul>	
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17:30 Poster session	
18:30 Dinner	
Thuesday 9:00 Maciej Konacki - Planets in binary-star systems: the ground-based effort	ort
9-Sep	
10:00 contr. talk 7	
10:30 coffee break	
11:00 Jeremy Leconte - Internal structure of extrasolar planets and the link	
to their host star	
12:00 contr. talk 8	
12:30 Lunch	
14:00 Gregory Feiden - Eclipsing binaries as tests of low-mass stellar evolution	on
theory	
15:00 contr. talks 9-11	
16:00 Coffee break	
16:30 Alceste Bonanos - New results on very massive binaries	
contr. talks 12-13	
18:30 Dinner	

Wednesday	9:00	Bill Welsh - Circumbinary planets observed by the Kepler mission
10-Sep		contr. talk 14
	10:30	Coffee break
	11:00	Tsevi Mazeh - Kepler binaries
	11:20	contr. talk 15
	12:30	Lunch
	14:00	Pawel Artymowicz - Formation of binary stars and planets
	15:00	Nader Haghighipour - Formation and evolution of planets in and around
		binary stars systems
	16:30	Sightseeing - castle

Thursday	9:00	Andrej Prsa - Eclipsing binary light-curve modelling after the Kepler mission
11-Sep		contr. talk 16
	10:30	Coffee break
	11:00	Jerry Orosz - Triple stars observed by the Kepler satellite mission
	12:00	contr. talk 17
	12:30	Lunch
	14:00	Kelly Hambleton - Heartbeat Stars and Tidally Induced Pulsations
	15:00	contr. talk 18-20
	16:00	Coffee break
	16:30	John Southworth - Observational studies of transiting planets
	18:00	concert
	20:00	Closing reception
Friday	9:00	Laurent Eyer - The GAIA mission
12-Sep		contr. talk 21
	10:30	Coffee break
	11:00	contr. talk 22-25
	12:00	End of the conference, summary?
	13:00	Lunch

## SOCIAL EVENTS

Sunday 7<sup>th</sup> – 19:30 The Welcome reception

Wednesday 10<sup>th</sup> – 16:30 Excursion: The Renaissance Castle

Thursday 11<sup>th</sup> - 18:00 Organ concert in the Church of the Finding of the Holy Cross

19:30 Closing reception

#### OTHER EVENTS

From Friday September 12<sup>th</sup> to Sunday 14<sup>th</sup> there will be an annual national meeting organized by the Variable Star and Exoplanet Section of Czech Astronomical Society. Interested persons are welcome to participate in this meeting at the same place in Litomyšl. This small group of mainly amateur astronomers provide several services widely used by astronomers around the world like the Exoplanet Transit Database, O-C gateway, or the Open European Journal on Variable Stars.

Miloslav Zejda chairperson of LOC

Slavek Rucinski chairperson of SOC