

**First Announcement  
of the  
International Conference**

**Binary and Multiple Stars  
in the Era of Big Sky Survey**

**Litomyšl, Czech Republic**

**September 9-13, 2024**

(<https://kopal2024.physics.muni.cz/>)

**MEETING ORGANIZERS**

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- [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 [Variable Stars and Exoplanets Section](#))
- [Litomyšl – Castle Hill](#)
- [City Litomyšl](#)

**CONTACT ADDRESS:**

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- **E-mail:** [kopal2024@physics.muni.cz](mailto:kopal2024@physics.muni.cz) or directly to heads of  
LOC - Miloslav Zejda ([zejda@physics.muni.cz](mailto:zejda@physics.muni.cz), LOC Co-Chair),  
Jan Janík ([honza@physics.muni.cz](mailto:honza@physics.muni.cz), LOC, Co-Chair)  
SOC - Theodor Pribulla ([pribulla@ta3.sk](mailto:pribulla@ta3.sk), SOC Chair),

**WWW:** <https://kopal2024.physics.muni.cz/>

## PROGRAM TOPICS

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### **Importance of Binaries**

- Fundamental stellar parameters
- Cosmic distance ladder
- Impact on stellar populations

### **Interacting binary systems**

- Symbiotic stars, classical novae, contact binaries
- Mass transfer and outflow, accretion and colliding winds

### **Pulsations in binaries and active binaries**

- Magnetic spot cycles, flares, granulation effects
- Pulsating components, tidally-excited pulsations, calibrating asteroseismology

### **Binary star evolution**

- Post-common-envelope binaries and common-envelope evolution, Darwin instability, stellar mergers, blue stragglers, binaries with compact components
- Perturbations in close binaries

### **Multiple systems**

- Multiply eclipsing stars
- Dynamical perturbations, stability of the systems, Kozai-Lidov cycles
- Origin and evolution
- Circumbinary exoplanets

### **Modeling**

- New modeling software/new features
- Data treatment/preparation
- Modeling of eclipsing binary observations in the era of satellite data
- Common modelling tools of binaries and exoplanets

### **Observations**

- Multi-dataset modelling
- Surface imaging
- Radial velocities, spectral fitting and disentangling
- New space missions and ground-based telescopes
- Binary stars in the upcoming exoplanet missions

## INVITED SPEAKERS:

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Michael Abdul-Masih:	Hot contact binaries
Henri M.J. Boffin:	Importance of binaries
Miroslav Brož:	Multi-dataset modeling
Ján Budaj:	Shellspec
Hans J. Deeg:	Common tools for binaries and exoplanets
Alexandre Gallenne:	Astrometry and interferometry of binaries
Dariusz Graczyk:	Distance from DEBs
Zhao Guo:	Tidally excite binaries
Petr Hadrava:	Fourier disentangling
David Jones:	PCEB binaries
Paulina Karczmarek:	Cepheids in binary stars
Zsolt Kóvári:	Magnetic activity in binaries
Ulisse Munari:	Classical novae
Krešimir Pavlovski:	Spectral fitting and RVs
Bogumil Pilecki:	Cepheids in EBs
Andrej Prša:	Space missions and binary stars
Slavek M. Rucinski:	Contact binary stars
Arnab Sarkar:	Evolution of CVs
Augustín Skopal:	Symbiotic stars
Andrew Tkachenko:	PLATO binaries
Andrei Tokovinin:	Origin and evolution of Multiples
Piotr Wielgórski:	Cerro Murphy Observatory

## SCIENTIFIC ORGANIZING COMMITTEE (SOC):

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**Chair:** Theodor Pribulla (*Astronomical Institute of Slovak Academy of Sciences, Tatranská Lomnica, Slovakia, [pribulla@ta3.sk](mailto:pribulla@ta3.sk)*)

- Volkan Bakış (*Department of Space Sciences and Technologies, Faculty of Sciences, Akdeniz University, Antalya, Turkiye, [volkanbakis@akdeniz.edu.tr](mailto:volkanbakis@akdeniz.edu.tr)*)
- Tamás Borkovits (*Baja Astronomical Observatory of University of Szeged, Baja, Hungary, [borko@electra.bajaobs.hu](mailto:borko@electra.bajaobs.hu)*)
- Edwin Budding (*Carter Observatory, Wellington, New Zealand, [ed.budding@gmail.com](mailto:ed.budding@gmail.com)*)
- Eleftheria Panagiota Christopoulou (*Department of Physics, University of Patras, Patras, Greece, [pechris@upatras.gr](mailto:pechris@upatras.gr)*)
- Szilárd Csizmadia (*Institute of Planetary Research, German Aerospace Center (DLR), Berlin, Germany, [szilard.csizmadia@dlr.de](mailto:szilard.csizmadia@dlr.de)*)
- Kosmas Gazeas (*Section of Astrophysics, Astronomy and Mechanics, Department of Physics, National and Kapodistrian University of Athens, Zografos, Athens, Greece, [kgaze@physics.auth.gr](mailto:kgaze@physics.auth.gr)*)
- Kelly Hambleton (*Department of Astrophysics and Planetary Science, Villanova University, Villanova, PA, USA, [kelly.hambleton@villanova.edu](mailto:kelly.hambleton@villanova.edu)*)
- Krzysztof Helminiak (*Nicolaus Copernicus Astronomical Center, Polish Academy of Sciences, Toruń, Poland, [xysiek@ncac.torun.pl](mailto:xysiek@ncac.torun.pl)*)
- Ondřej Pejcha (*Institute of Theoretical Physics, Faculty of Mathematics and Physics, Charles University, Praha, Czech Republic, [pejcha@utf.mff.cuni.cz](mailto:pejcha@utf.mff.cuni.cz)*)
- Grzegorz Pietrzyński (*Nicolaus Copernicus Astronomical Center, Polish Academy of Sciences, Warszawa, Poland, [pietrzyn@camk.edu.pl](mailto:pietrzyn@camk.edu.pl)*)
- John Southworth (*Astrophysics Group, Keele University, Staffordshire, United Kingdom, [astro.js@keele.ac.uk](mailto:astro.js@keele.ac.uk)*)

- Christopher Adam Tout (*Institute of Astronomy, The Observatories, Madingley Road, Cambridge, United Kingdom, [cat@ast.cam.ac.uk](mailto:cat@ast.cam.ac.uk)*)
- Petr Zasche (*Charles University, Faculty of Mathematics and Physics, Astronomical Institute, Praha, Czech Republic, [petr.zasche@email.cz](mailto:petr.zasche@email.cz)*)
- Miloslav Zejda (*Department of Theoretical Physics and Astrophysics, Faculty of Science, Masaryk University, Brno, Czech Republic, [zejda@physics.muni.cz](mailto:zejda@physics.muni.cz)*)
- Stanisław Zoła (*Astronomical Observatory, Jagiellonian University, Krakow, Poland, [szola@oa.uj.edu.pl](mailto:szola@oa.uj.edu.pl)*)

## LOCAL ORGANIZING COMMITTEE (LOC):

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**Chairs:** Miloslav Zejda & Jan Janík

- Jan Janík, Department of Theoretical Physics and Astrophysics, Masaryk University, Brno ([honza@physics.muni.cz](mailto:honza@physics.muni.cz))
- Richard Milan Komžík, Astronomical Institute of Slovak Academy of Sciences, Tatranská Lomnica, Slovakia ([rkomzik@ta3.sk](mailto:rkomzik@ta3.sk))
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- Pavel Suchan, Astronomical Institute of Academy of Science, Ondřejov, Prague ([suchan@astro.cz](mailto:suchan@astro.cz))
- Marek Wolf, Astronomical Institute, Charles University, Prague ([wolf@cesnet.cz](mailto:wolf@cesnet.cz))
- David Zandler, Litomyšl - Castle Hill ([david.zandler@zamecke-navrsi.cz](mailto:david.zandler@zamecke-navrsi.cz))
- Miloslav Zejda, Department of Theoretical Physics and Astrophysics, Masaryk University, Brno ([zejda@physics.muni.cz](mailto:zejda@physics.muni.cz))

## CONFERENCE CITY - LITOMYŠL:

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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 [www.litomysl.cz](http://www.litomysl.cz).

[Recommended tour in Litomyšl.](#)

## CONFERENCE VENUE:

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The Castle Hill 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 (bus stop Litomyšl – zámek).

## TRAVEL INFORMATION:

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### In general:

For railway or bus connections the actual information may be found at [Bus and Train Timetables](#).

Litomyšl 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 Litomyšl 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 - <https://www.prg.aero/en/transport-airport>.

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 (12 km far away from Litomyšl).

See <https://idos.idnes.cz/en/vlaky/spojeni/>. From Česká Třebová to Litomyšl see paragraph 3.

### 2. Vienna airport

You can use Vienna airport in Austria even if you need to obtain a visa for the Czech Republic (CZ). However application for a Schengen visa enables you to travel through the CZ and neighbouring countries.

There are possibilities to travel directly from the airport to Brno by bus or even Česká Třebová by train - see webpages:

- <https://idos.idnes.cz/vlakyautobusymhdvse/spojeni/>
- [https://www.viennaairport.com/en/passengers/arrival\\_parking/s-bahn\\_suburban\\_railway](https://www.viennaairport.com/en/passengers/arrival_parking/s-bahn_suburban_railway)
- [https://www.viennaairport.com/en/passengers/arrival\\_parking/bus\\_connections](https://www.viennaairport.com/en/passengers/arrival_parking/bus_connections)

You can then take the train to Česká Třebová. See <https://idos.idnes.cz/en/vlaky/spojeni/>.

### 3. From Česká Třebová to Litomyšl

You can use also bus transport from Česká Třebová – Litomyšl (approx. 15 km, 16 – 29 min.) Bus station is located opposite the railway station building. Bus to Litomyšl is labeled LITOMYSL on front window. Get off at bus stop LITOMYŠL–ZÁMEK (LITOMYSL-CASTLE) which is about 20 metres from Castle Hill building. Regular departures are [HERE](#).

You can use also taxi. Better call the taxi 15-20 minutes before your trip. Price is about 500 CZK.

TAXI	Phone number
TAXI Benátky	+420 722 001 440, +420 722 001 5500
Taxi Quick - Litomyšl	+420 605 940 200
Taxi Quick - Česká Třebová	+420 722 448 844, +420 777 004 400
Taxi Souček	+420 723 632 266

souceek@seznam.cz

Taxi Orlicko	+420 605 30 95 30	<a href="https://taxiorlicko.cz/">https://taxiorlicko.cz/</a>
TAXI Peklo	+420 775 770 200	cash

#### 4. 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 an electronic vignette (<https://edalnice.cz/en/index.html#/validation>).

In Litomyšl you can use many parking places see map [HERE](#).

#### 5. Note

There are also "smaller regional" airports in Pardubice (<https://www.airport-pardubice.cz/en/home/>), Ostrava (<https://www.airport-ostrava.cz/en/>) or Brno (<https://www.bruno-airport.cz/en/>), which offer connection to some destinations by means of low-cost airlines.

### WEATHER CONDITIONS:

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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:

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Lunches will be provided in the conference dining room which is next to the conference hall. There will be three options including vegetarian lunch. Vegetable buffet will be available during lunch time for participants with ordered lunch.

**Participants arrange the accommodation by themselves.** If they use hotels mentioned in the conference registration webpage, they obtain a bit lower prices in the listed hotels (please, take into account that the rooms in these hotels are booked for participants of the conference). In communication with these hotels the password **KOPAL2024** should be used. Selecting the hotel in registration form is only informative for organizers!

If you have question or request, please contact the organizers.

### REGISTRATION:

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Online registration is open via the [conference webpage](#).

### Conference Deadlines

- **Early registration: until June 30, 2024**
- **Late Registration: after July 1, 2024**

## Conference fee

The normal registration fee is **7000 CZK (about 280 EUR)**, the late registration fee (after May 1, 2024) costs **8750 CZK (about 350 EUR)**, 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 rate are available at [Czech National Bank](#), approximately it is 1 EUR ≈ 25 CZK / 1 USD ≈ 23 CZK.

All conference fees will be forfeited if cancellation of attendance and accommodation is received after 15 August 2024; 70 % of the fees will be paid back for cancellations received before or on 15 August 2024.

## TALKS, PAPERS:

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The working language of the conference will be English.

The time allocated for an invited review talk is 35 min + 10 min for discussion, invited talk 25+5 min 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. The recommended poster size is A1 or A0.

Oral contributions and posters will be published as a special issue of the ASP Conference Series. Style and instruction will be available on conference webpage.

**The abstract submission deadline is August 1, 2024.**

## SOCIAL EVENTS

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Sunday 8<sup>th</sup> – 19:00 The Welcome reception in the Museum of Litomyšl

During the conference: Excursion: The Renaissance Castle, concert, walk on Kopal's tour ...

Thursday evening: Closing reception

## OTHER EVENTS

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From Friday September 13<sup>th</sup> to Sunday 15<sup>th</sup> there will be an annual national meeting organized by the Variable Star and Exoplanet Section of Czech Astronomical Society. This meeting could be an excellent opportunity of Pro-Am discussions and introducing joint projects and Pro-Am collaboration. 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 & Jan Janík  
chairpersons of LOC

Theodor Pribulla,  
chairperson of SOC