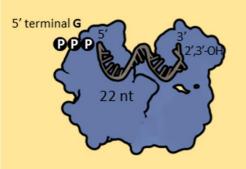
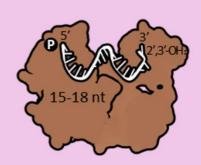


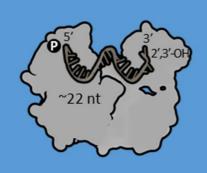
# The Argonautes 2025

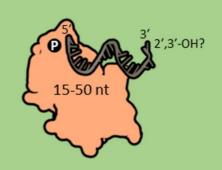
Prague, 27.-30.8. 2025





# **Booklet for Parents**





# Program at Glance

Wednesday, Au	ıgust 27th, 2025				
12:30- 14:20	registration				
14:20 - 14:30	welcome from organizers				
	Session 1 - Structural insights				
14:30 - 15:30	Bartel, MacRae, Lin				
16:10 - 17:30	Stefl, Nakanishi, Swarts, Pshanichnaya				
18:00 - 18:30	poster flashtalks				
18:30- 19:30	dinner				
19:30- 22:30	welcome reception around posters				
Thursday, Aug	rust 28th, 2025				
	Session 2 - Argonaute complexes				
9:00 - 10:20	Ameres, Tomari, O'Carroll, Jeske				
11:00 - 12:40	Mendell, Lai, Claycomb, Golovinas, Jelenic				
12:40 - 14:00	lunch				
	Session 3 - Argonaute modifications and regulations				
14:00 - 15:20	Brodersen, Ketting, Simard, Friedländer				
16:00 - 16:20	McJunkin, Meister, M. Liu, Sarshad				
18:00 - 18:30	poster flashtalks				
18:30 - 19:30	dinner				
19:30 - 22:00	poster session w. snacks & drinks				
22:00 - ??	Argonaute music party				
Friday, August					
	Session 4 - Silencing mechanisms & biological roles				
09:00 - 10:40	Ambros, Pasquinelli, Cecere, Bravo, Zaremba				
11:20 - 12:40	Zamore, Moran, van Rij, Loubalova				
12:40 - 13:00	AGO alliance presentation				
13:00 - 14:10	lunch & family posters				
14:10 - 15:30	Komiya, Corey, Buck, Dussutour				
15:30 - 19:00	time off & transfer to Kolkovna				
19:00 - 22:00	dinner at Kolkovna downtown				
Saturday, Augu					
	Session 5 - Argonautes in disease				
09:00 - 10:20	Lessel, Haase, La Rocca, Han				
11:00 - 12:40	Piton, Kreienkamp, Carré, Zinovyeva, Delvallée				
12:40 - 14:00	closing & boxed lunch & departures				
13:30 - 17:00	AGO syndrome patients workshop				
17:00 - 22:00	post-conference chilling out Na ty louce zeleny				

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# **Meeting Essentials**

#### Meeting venue

Institute of Molecular Genetics of the Czech Academy of Sciences Address: Vídeňská 1083, 142 20 Praha 4 [2F77+PX Prague]

Website: https://www.img.cas.cz/

GPS: 0.0171699524, 14.4657697678

Internet: free wi-fi is available at IMG (Eduroam & IMG-free)

## Recording, Photography, Cell Phone, and Usage of Social Media

We welcome the use of social media by participants. Use the #argonautes2025 hashtag during the event for any related tweets and follow commonly accepted social media etiquette. Please, remember that unpublished data should be regarded as confidential and should not be published. Therefore, do not capture, transmit or redistribute unpublished data presented at the meeting - this may preclude subsequent publication of the data in a scholarly journal and/or patent protection. Likewise, posters or slides must not be photographed without a consent of the authors. Obtain an approval from a speaker or poster presenter prior to quoting or publishing that individual's scientific results. Mute your cellphone/laptop/tablet volume to avoid disrupting sessions

#### Presentations - length & upload

All lectures are 15 minutes talk + 5 minutes for questions. Poster flash talks: 1 minute, one slide only. Session chairs will be instructed to be strict about time management. Bring your presentations to the AV operator for uploading into during the coffee or lunch break preceding your session at the latest.

#### Poster format

Poster boards are 90 cm wide and 120 cm high. Posters can be put up on Wednesday afternoon, an informal poster session will take place on Wednesday evening, the formal one on Thursday evenings. Free drinks & snacks will be provided. Need to print a poster in Prague? Check https://www.copygeneral.cz/

### Catering at IMG

Catering is largely buffet style, the dinner on Thursday with seating in the IMG dining hall. Extra snacks and extra drinks can be purchased at IMG cafeteria, which is open 8:30—16:30.

## Downtown dinner on Friday 29.8. 2025 @ 19:00

Kolkovna Celnice, V Celnici 1031/4, 110 00 Praha 1 The nearest Metro station: *Náměstí republiky* 

https://celnice.kolkovna.cz/

# Detailed program

Wednesday, A	August 27th, 2025
12:30- 14:20	registration
14:20 - 14:30	welcome from organizers
	Session 1 - Structural insights
14:30 - 14:50	David Bartel, Whitehead Institute – MIT Target-directed microRNA degradation
14:50 - 15:10	Ian MacRae, Scripps Research A conserved PIWI silencing complex detects piRNA-target engagement
15:10 - 15:30	Daniel Lin, Whitehead Institute A menagerie of endogenous site architectures mediates mammalian target-directed miRNA degradation
15:30 - 16:10	coffee break
16:10 - 16:30	Richard Stefl, CEITEC  How Argonautes engage with their protein binding partners
16:30 - 16:50	Kotaro Nakanishi, Ohio State University Structural and functional study of Argonaute syndrome
16:50 - 17:10	Daan Swarts, Wageningen University Activation and inactivation of long-A prokaryotic Argonaute proteins
17:10- 17:30	Lizaveta Pshanichnaya, IMB Mainz A role for the intrinsically disordered N-terminal region of WAGO-3 in small RNA selection
17:30- 18:00	coffee break
18:00 - 18:30	poster flashtalks
18:30- 19:30	dinner
19:30- 22:30	welcome reception around posters
Thursday , A	agust 28th, 2025
	Session 2 - Argonaute complexes
9:00 - 9:20	Stefan Ameres, Max Perutz Labs <i>Uridylation-triggered RNA decay promotes multiple-turnovel RNA interference to enhance antiviral silencing in Drosophila</i>

9:20 - 9:40	Yukihide Tomari, University of Tokyo A Primitive piRNA Surveillance System That Broadly Monitors the Germline Transcriptome
9:40 - 10:00	Donal O' Carroll, University of Edinburgh Safeguarding germline immortality
10:00 - 10:20	Mandy Jeske, Heidelberg Uni.  Defining piRNA factor interaction networks across species
10:20 - 11:00	coffee break
11:00 - 11:20	Joshua Mendell, University of Texas Mechanism and physiologic role of target-directed microRNA degradation
11:20 - 11:40	Eric Lai, Sloan Kettering Institute  An effector of enhanced RNA silencing in Alas1 mutants
11:40 - 12:00	Julie Claycomb, University of Toronto  Deciphering the sex-specific roles of C. elegans germline  small RNA pathways
12:00 - 12:20	Edvardas Golovinas,Vilnius University Swiss army knife interaction modality between split long-B pAgos and their effectors
12:20 - 12:40	Stela Jelenic, IMBA Vienna How Germ Granule Localization Shapes Argonaute Specificity and Fidelity in Small RNA Loading
12:40 - 14:00	lunch
	Session 3 - Argonaute modifications and regulations
14:00 - 14:20	Peter Brodersen, University of Copenhagen  Looping for loading: A role of ARGONAUTE loops in reversible chaperone binding
14:20 - 14:40	Renee Ketting, IMB Mainz  Proteases regulate the loading and activity of Argonaute  protein WAGO-3 in C. elegans
14:40 - 15:00	Martin Simard, Laval University <i>Uncovering regulatory mechanisms of Argonaute function in the animal microRNA pathway</i>
15:00 - 15:20	Marc Friedländer, Stockholm University/SciLifeLab Protected by Argonautes? MicroRNAs in ancient and extinct animals

15:20 - 16:00	coffee break
16:00 - 16:20	Katherine McJunkin, NIH/NIDDKD  A IncRNA drives developmentally-timed decay of all
	members of an essential microRNA family
16:20 - 16:40	Gunter Meister, University of Regensburg Interactions and modifications navigating AGO2 through small RNA-guided silencing cycles
16:40 - 17:00	Mo-Fang Liu, Shanghai Institute of Biochemistry & Cell Biology MIWI/piRNAs are Programmed to Enter the Nucleus to Silence Meiotic Genes in Late Spermatocytes
17:00- 17:20	Aishe Sarshad, University of Gothenburg  Nuclear AGO2 supports influenza A virus replication through  type-I interferon regulation
17:20- 18:00	coffee break
18:00 - 18:30	poster flashtalks
18:30 - 19:30	dinner
19:30 - 22:00	poster session w. snacks & drinks
22:00 - ??	Argonaute music party
Friday, Augus	st 28th, 2025
	Session 4 - Silencing mechanisms & biological roles
09:00 - 9:20	Victor Ambros, University of Massachusetts MicroRNAs contribute to multi-dimensional regulation of LIN-28 temporal expression dynamics in C. elegans
09:20 - 9:40	Amy Pasquinelli, University of California, San Diego Less Stress with miRISC
9:40 - 10:00	Germano Cecere, Institut Pasteur Soma-to-Germline miRNA Inheritance via Yolk Promotes Stress Resilience in Progeny
10:00 - 10:20	Jack Bravo, ISTA Anti-plasmid immunity by pAgo-helicase/nuclease systems
10:20 - 10:40	Mindaugas Zaremba, Vilnius university  Mechanism of action of SPARDA defense system
10:40 - 11:20	coffee break
11:20 - 11:40	Phil Zamore, UMass Chan Medical School

	Mouse pachytene piRNAs persist in evolution because target cleavage by a tiny minority of piRNAs improves sperm fitness
11:40 - 12:00	Yehu Moran, Hebrew University of Jerusalem Characterizing the role of the Argonaute regulator ZSWIM8 in Cnidaria
12:00 - 12:20	Ronald van Rij, Radboud University Medical Center Nonredundant functions of mosquito PIWI proteins
12:20 - 12:40	Zuzana Loubalova, NIH/NIDDK  Signatures of cooption in mammalian pachytene piRNAs
12:40 - 13:00	AGO alliance presentation
13:00 - 14:10	lunch & family posters
14:10 - 14:30	Reina Komiya, Okinawa Institute of Science and Technology Reproductive Argonaute-Mediated Non-coding RNA Regulation in Rice
14:30 - 14:50	David Corey, University of Texas  Applying Chimeric eCLIP to Nuclear RNAi
14:50 - 15:10	Amy Buck, University of Edinburgh <i>Forms and functions of Argonaute transmission between cells</i>
15:10 - 15:30	Ange Dussutour, Institut Sophia-Agrobiotech Secretion of small non-coding RNA as new effectors in plant- nematode interaction
15:30 - 19:00	time off & transfer to Kolkovna
19:00 - 22:00	dinner at Kolkovna Celnice downtown
Saturday, Au	gust 30th, 2025
	Session 5 - Argonautes in disease
09:00 - 9:20	Davor Lessel, University of Regensburg  Argonaute/Lessel-Kreienkamp syndrome: novel clinical, genetic and mechanistic insights
09:20 - 9:40	Astrid Haase, NIH/NIDDK Guardians of the Germline: PIWI-clade Argonautes and Their Role in Fertility
9:40 - 10:00	Gaspare La Rocca, University of Palermo Global Inhibition of MicroRNA Function Impairs Tumor Growth and Improves Response to Therapy
10:00 - 10:20	Jinju Han, KAIST

	AGO1 in neural progenitor cells orchestrates brain development and sociability via the LIN28A-REELIN axis
10:20 - 11:00	coffee break
11:00 - 11:20	Amelie Piton, IGBMC Clinical and molecular characterization of Argonaute syndrome caused by nonsynonymous variants in human AGO1 gene
11:20 - 11:40	Hans-Jürgen Kreienkamp, Uniklinik Hamburg-Eppendorf Functional analysis of missense variants in AGO2 causing Lessel-Kreienkamp syndrome (Leskres)
11:40 - 12:00	Clément Carré, Inst. de Biologie Paris-Seine - Sorbonne Université Modeling Human Argonaute-1 (hAGO1) Mutations Associated with Intellectual Disability in Drosophila melanogaster
12:00 - 12:20	Anna Zinovyeva, Kansas State University Functional characterization of Argonaute syndromes variants in Caenorhabditis elegans
12:20 - 12:40	Clarisse Delvallée, IGBMC  Deciphering pathophysiology of Argonaute syndrome, caused by nonsynonymous variants in human AGO1 gene, using transcriptomic cross analysis in 2D and 3D in vitro models of brain development
12:40 - 14:00	closing & boxed lunch & departures
13:30 - 17:00	AGO syndrome patients workshop
17:00 - 22:00	free post-conference chilling out <i>Na ty louce zeleny</i>

# **Directions**

Venue address: Videnska 1083 - building F, Prague 4, 142220

• Loc: 50.017854, 14.466685 (campus entrance)

Loc: 50.014703, 14.465250 (institute building)

#### City public transport

By underground (Metro) system get to the station *Kačerov* (red line C), then use the bus #138 in the direction *Ústavy Akademie věd* to the final stop. The bus stop for #138 is right in the front of the exit from the *Kačerov* Metro station. For info on tickets, lines & apps, see page 14.

#### When arriving by train

The main station ( $Hlavni \ n\'adra z\'i)$  is on the line C, the station Ka'erov is in direction H'aje, the Metro platform is accessed via the underground entrances further when walking from train platforms. From any other train station, hop on Metro, go to Ka'erov, then  $\uparrow$ .

#### When arriving by airplane

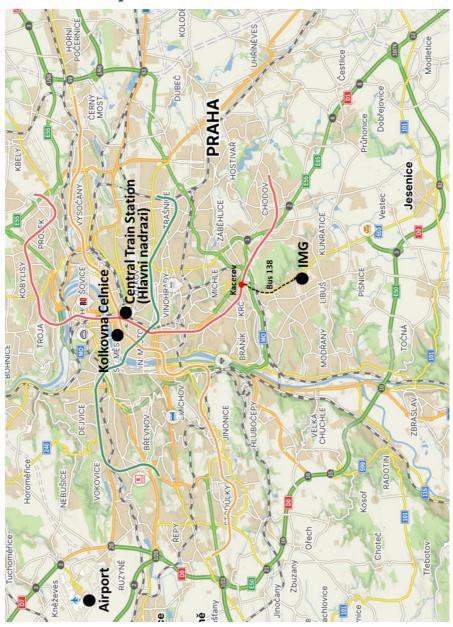
From the airport, take the trolley bus #59 to N'adra'z'i Veleslav'in (~15 min ride), then take Metro (green line A) to Museum (~15 min), change to the red line C, go to Ka'evov, then  $\uparrow \uparrow$ .

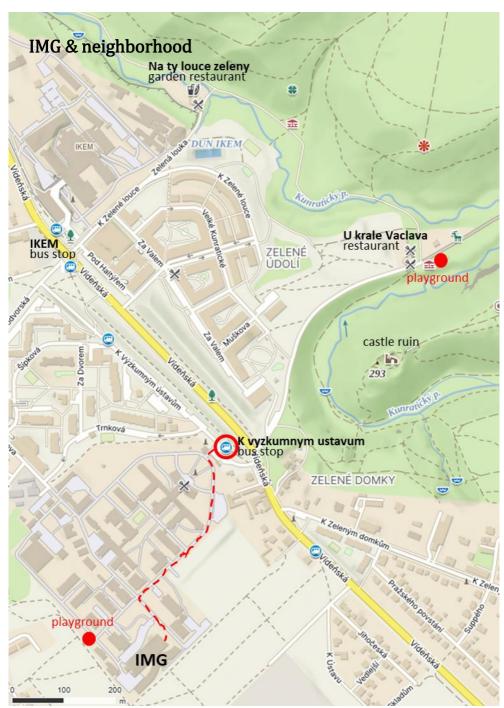
#### When arriving by car

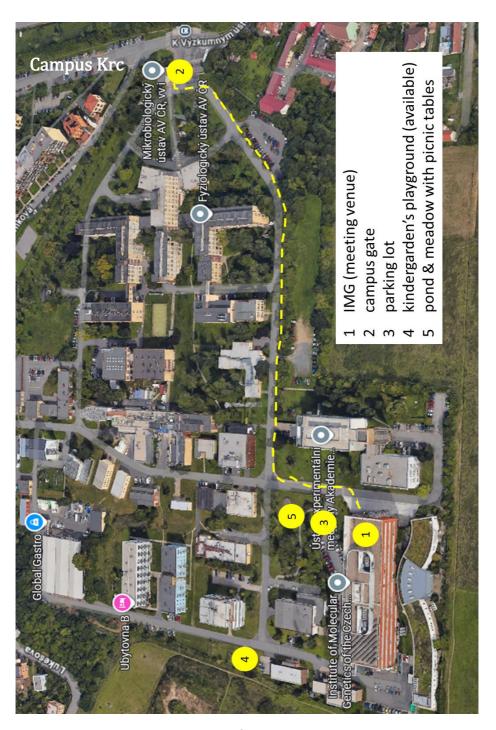
When coming from northwest, west, south or southeast, use the outer ring, exit at Vestec (exit 3) and go north on the exit circle (direction Prague), then go straight through two circles until an open field with institute buildings appears on your left, then exit left to the main gate.

When coming from north, northeast, or east, get on the inner circle and exit at the exit Krč at "Jižní spojka", then continue on Vídeňská street south around the hospital Krč complex (on your left), go straight through lights by the IKEM hospital (white building on the left) and take the next turn to the right to arrive to the main gate.

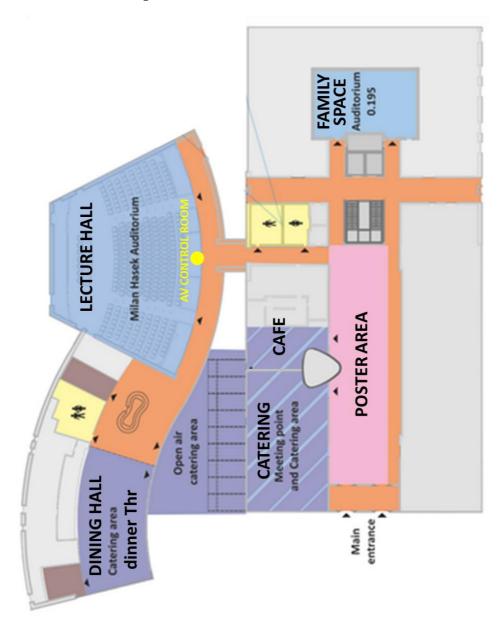
# **Essential maps**







# IMG venue floorplan



# **Czech & Prague Essentials**

#### Czechia, Czech & Czechs

The simplest way to accept Czechia is think it's a kind of a hobbiton placed in the Central Europe, which is occupied by hobbits speaking an incomprehensible language, loving beer, socializing in pubs, and mainly caring for themselves. Armies were marching for centuries across this region in every direction while locals were trying to live through wars and other disasters, some of which they started themselves (e.g. Hussite wars, The Thirty Years' War or the communist takeover). Czechs are cynical, sarcastic, non-religious, often pissed off and complaining while conservative in many ways. Best are left alone. With a few beers, they melt and become friendly unless you try to educate them and criticize their attitude to whatever. When drunk, they become melancholic rather than aggressive. The language is essentially incomprehensible to non-Slavic speakers and its grammar is horribly complicated. Give up. It will be well appreciated if you would be able to say please and thank you.

Dobrý den.	Hello.	IMPORTANT NUMBERS		
Děkuji.	Thank you.	Emergency (any)	112	
Prosím	Please	Police	158	
Jedno pivo.	One beer.	Paramedic	155	

### Public transport in Prague

A physical ticket for a public transport ride in Prague must be time–stamped upon the first entry into the transport system (tram, entrance to metro). Tickets can be purchased at special booths (airport), newspaper shops, entrances to metro or in some trams and buses. Tickets are for 30 min, 90 min, 1 day & 3 days. Electronic tickets can be purchased via SMS or via app called **litacka**. Always have a ticket, controls are relatively frequent and do not care about confused tourists! **All meeting participants will receive a 3-day ticket upon registration at the meeting venue**.



#### Czech Currency - CZK = Czech crown

Czechia does not use Euro although some shops in Prague may accept it. 1 Euro =  $\operatorname{cca} 25$  CZK. The simplest way to get Czech currency is from ATMs of one of the main banks. Whenever you try to get Czech cash elsewhere, you risk of being ripped off. **Never exchange money on the street**. Never use the exchange point booths along the tourist routes. Beware of ATM or exchange machines at the airport or along the major tourist routes, they have set extra fees or bad exchange rates.

Czechia was hit the last few years with inflation, so nowadays you rarely get a beer under 50 CZK, a main course in a restaurant is usually between 250–400. Paying with the 2000 CZK banknote may be problematic at smaller shops. The 5000 CZK banknote is rarely seen.



### Tipping at restaurants

There are no specific rules for tipping at restaurants. If you liked the service, some tip is expected and appreciated. For a single beer or a coffee, rounding up to the nearest ten is OK while some people would pay exactly. For a bill of several hundreds of CZK, rounding up to the nearest fifty or hundred is common. For a dinner of a few people a tip up to 200 CZK is a nice tip.

# Some options with kids in Prague

### Some playgrounds

#### Park Brumlova (2FW5+M4 Praha 4)

Za Brumlovkou, 140 00 Praha 4., GPS: 50.046688, 14.457870

A playground for kids about 10 minutes walking from the hotel ILF, the playground is nice, the highway nearby is a bit loud. Before the highway underpass are two smaller playgrounds by the apartment houses - playground Jihlavska (2FW3+4H Praha) and Bitovska (2FW4+36 Praha).







### Playground Lisek (2FV4+28 Praha)

Bus station Lisek at Budejovicka, GBPS: 50.042588, 14.455825 A simple small playground for kids 7 minutes walking from the hotel ILF.



#### Malesicky Park (3FPX+2M Praha)

Cerhenická, 101 38 Praha 10, GPS: 50,085065 14,499145

A bit difficult to reach by public transportation (bus 188 & 199 from Metro *Zelivskeho* to station *Plananska*). This park has a number of interesting water installations and a large crawling net. Free admission.



Krtkuv svet (3H28+96 Dolní Mecholupy, Praha 111) http://krtkuvsvet.cz/
K Měcholupům 777, 109 00 Dolní Mecholupy, GPS: 50,085065 14,499145
A paid amusement park for kids, near the train station Praha - Horni
Mecholupy has many atractions for kids (sorry, the websis is only in Czech).



#### Museum of Phantastic illusions

Galerie Myšák, Vodičkova 31/710, GPS: 50.0811903N, 14.4246244E http://www.muzeumfantastickychiluzi.cz/

They say it's the funniest museum in Prague. The museum provides a number of interesting optical illusions. It is one of the tourist traps but at least it's funny. Admission  $\sim 10$  Euro/kid.



## Výtopna - a model train restaurant (Václavské nám. 560)





Výtopna is a restaurant at the upper part of the Wenceslas Square where drinks and food are served by a model train. That's it. It serves drinks (our kids liked virgine mojito) and simple Czech food.

It's a must if you like trains. Tracks run around the whole pub, best are tables with their own terminus. It may be difficult to get a place there, it's better to book it ahead. Best is to come with up to seven other people and get one of those tables with own terminus where the train comes, you unload it and then the train leaves. Be fast and do not ever touch a moving train.





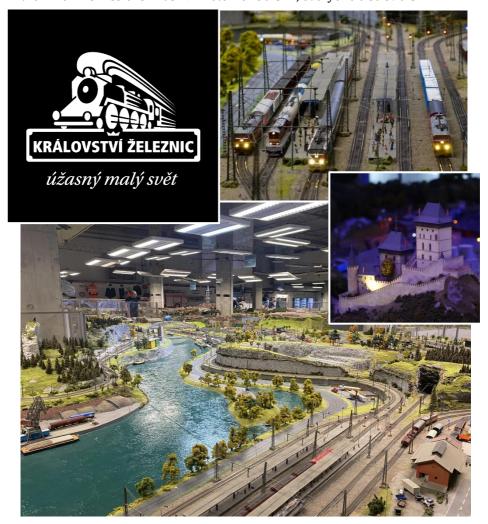
## Kralovstvi zeleznic/Kingdom of Railways

https://www.kralovstvi-zeleznic.cz/en/

Stroupežnického 23, Praha 5 - Smíchov, near metro station Andel.

OPENING HOURS Monday - Sunday (including holidays): 9 a.m. - 7 p.m

Huge model railway - 600 m2 of model railway tracks plus additional offer of entertainment for a family in 3500 m2 area. It includes simulators, RC models, model car racing, a workshop, a playground, a photocorner – more detail on their wen. Asmissions: kids <1 meter for 50 CZK, everyone else 390 CZK.



### Orloj - Prague Astronomical Clock (Old Town Square)

The area around this marvel of medieval engineering is the worst tourist trap among all places described here (you have been warned!). In any case, it is mentioned, because it is a short walk from Kolkovna Celnice, the dinner place on Friday, so people may visit it quite easily.

More information about the "Orloj" can be found elsewhere (check the QR code). Seeing it moving is a highlight of

Prague visits but it gets really crowded during the day, especially during each full hour show (8AM till 11PM), which kids may like. They say it is the oldest functional astronomical clock in the world. The original clock was first mentioned in 1410, other parts are younger (the calendar was added  $\sim\!1490$ ). The clock actually stopped working and was repaired many times.

The Orloj suffered heavy damage during the Prague uprising on May 7<sup>th</sup> and 8<sup>th</sup> 1945, when the Nazis fired on the south-west side of the Old Town Square



from armoured vehicles in an attempt to destroy one of the centers of the uprising. The hall and nearby buildings burned, along with the wooden sculptures on the clock and the calendar dial face. After significant effort, the machinery was repaired, the wooden Apostles restored, and the Orloj behan working again in 1948.

The 2018 reconstruction included making a copy of the calendar dial. A hilarious affair started when it turned out that the recruited artist took too much freedom and changed some of the figures and some got even faces of living people. The city now has to obtain another copy to fix it.

Nerds may appreciate the QR code below, which leads to a simulator of the astronomical clock, which can be set to a

specific moment in the past or the future to show the position of dials of the astronomical clock at that moment.





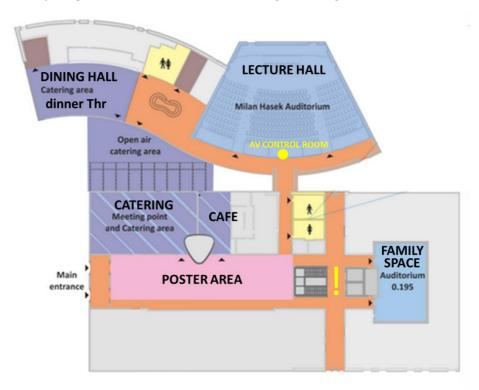
The T3 is a legendary tramcar produced by ČKD Tatra factory since 1960. ~14 000 cars were built and it became the most dominant tramcar model in Eastern Bloc countries (except for Poland and Hungary) and it is one of the most widespread tram cars in the world. >1000 cars were delivered to Prague and by 2011 it still had the best reliability of the Prague tram system fleet. Its rounded body, a lot of standing space, and laminate seats still serve well around the city.





# Some options with kids at IMG & around

IMPORTANT: Please, keep in mind that IMG is a research institution, which was not designed for having children running around the building – particularly the stairs area (!) may be dangerous for unsupervised children. Similarly the pond and roads around the building also bring some risks.



Parking is available next to the building, spots are not reserved (first-come-first-served). The building must be entered through the Main entrance, the side entrance can be used to exit and walk to the pond or the playground next to IMG's kindergarten.

Families will have for their use the room 0.195 from Friday until the end of the meeting. Drinks, snacks & ice cream can be obtained in café (ice cream will be provided for free), on Saturday the café may be closed but we will have catering and ice cream. There is also a wending machine near the room 0.195.

## Playground & picnic area next to IMG

There is a fenced playground next to IMG, which is available. Also available is the picinic area with large picnic tables if you wish to stay outside. Another option for staying outside is the terrace nect to IMG's cafeteria. In the picnic are is a pond with fish.





## Options around the campus

Northwest to the campus is the Krc forest area for walking around. There are two graden restaurants, a playground and a castle ruin (see the larger map on p11)

### Na ty louce zeleny

A restaurant with a large garden and a small playground there. From bus stop IKEM just walk down towards the forest. It's a popular place for families with kids, a starting or an end-point for walking through the forest.

#### U krale Vaclava

Another restaurant with a large garden and a separate public playground next to it. To get there, one has to cross the main street near the main gate to the campus and walk down.





## Nový hrad castle ruin near the campus



The Nový hrad castle near the meeting venue is a ruin of a former royal castle built at the beginning of the 15th century by Wenceslas IV, King of Bohemia and the Holy Roman Empire, son of Charles IV. The castle was king's favorite residence and his numerous stays likely contributed to his supposed alcoholic dementia. The king died at the castle on 16.8. 1419. It is told he got a stroke when being informed about the first Prague defenestration, which started the Hussite wars. Two weeks later he died

from another stroke. The castle was conquered by the Hussites in 1421 and burned down. A considerably large ruin remained there until 1881 but it was leveled to the cellar level to discourage people to visit it. The restoration of the humble remains took place in 2009–2013. Once king's favorite party place, it occasionally provided place for parties of PhD students from the Krc campus. To get there from the main campus gate walk right to a pedestrian crossing on the main street and then walk down along the blue trail.



# We thank our sponsors & supporters







