

An aerial photograph showing a city in the distance, a large forested hill in the middle ground, and a green field with a road in the foreground. The text is overlaid on the right side of the image.

Welcome to
PASCOS 2022
at the
**Max-Planck-Institut
für Kernphysik
(MPIK)**

26 Pascos 2021: IBS, South Korea

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25 Pascos 2019: University of Manchester, UK

24 Pascos 2018: Case Western Reserve University, USA

23 Pascos 2017: IFT Madrid, Spain

22 Pascos 2016: Quy Nhon, Vietnam

21 Pascos 2015: ICTP Trieste, Italy

20 Pascos 2014: Univ. of Warsaw, Poland

19 Pascos 2013: NTU, Taiwan

18 Pascos 2012: Merida, Mexico

17 Pascos 2011: DAMTP, Cambridge, UK

16 Pascos 2010: Valencia, Spain

15 Pascos 2009: DESY/Hamburg, Germany

14 Pascos 2008: Perimeter Institute, Canada

13 Pascos 2007: Imperial College, London, UK

12 Pascos 2006: U Ohio, USA

11 Pascos 2005: Gyeongju, Korea

10 Pascos 2004: Northeastern University, USA

09 Pascos 2003: TIFR, Mumbai, India

08 Pascos 2001: U North Carolina, USA

07 Pascos 1999: UC Davis, USA

06 Pascos 1998: Northeastern University, USA

05 Pascos 1995: The Johns Hopkins, USA

04 Pascos 1993: Syracuse University, USA

03 Pascos 1992: UC Berkeley, USA

02 Pascos 1991: Northeastern University, USA

01 Pascos 1990: Northeastern University (Founding chair: Pran Nath)

**PASCOS – an impressive
conferences series with
one interruption...**

PASCOS

PARTICLES
STRINGS
COSMOLOGY

25-29 JULY 2022 - MPIK - HEIDELBERG - GERMANY

27th International Symposium on Particles, Strings and Cosmology

25–29 Jul 2022

Max Planck Institute for Nuclear Physics, Heidelberg, Germany

Europe/Berlin timezone

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PASCOS 2022, the 27th International Symposium on Particles, Strings and Cosmology, will take place on July 25-29, 2022. The aim of the conference is to review recent progress in particle physics, astroparticle physics, string theory and cosmology, with particular emphasis on their interconnections. The symposium is a platform for researchers to report and discuss what has been learned and what might show up in the next few years. Topics will include, for example, new physics at LHC, gravitational waves, neutrinos, dark matter and non-accelerator probes of new physics, string theory and new results in cosmology.

The conference includes invited plenary talks as well as parallel sessions. We particularly welcome and encourage the participation of early-career researchers.

PASCOS 2022 will be **hosted in-person** at the **Max-Planck-Institut für Kernphysik** (MPIK, Max Planck Institute for Nuclear Physics) in Heidelberg, Germany.



PASCOS

PARTICLES
STRINGS
COSMOLOGY

25-29 JULY 2022 - MPIK - HEIDELBERG - GERMANY

The overall shedule

Monday July 25	Tuesday July 26	Wednesday July 27	Thursday July 28	Friday July 29
Registration	Plenary Session 2	Plenary Session 3	Plenary Session 4	Plenary Session 6
9.00–10.00	09.00 - 10.30	09.00 - 10.30	09.00 - 10.30	09.00 - 10.30
Coffee	Coffee Break	Coffee Break	Coffee Break	Coffee Break
10.00 - 10.30	10.30 - 11.00	10.30 - 11.00	10.30 - 11.00	10.30 - 11.00
M. Lindner: Opening remarks 15' Plenary Session 1	Morning Parallel Session 1 4 sessions with 5 talks 15'+3' each	Morning Parallel Session 1 4 sessions with 6 talks 15'+3' each	Morning Parallel Session 1 4 sessions with 5 talks 15'+3' each	Plenary Session 7
10.30 - 12.30	11.00 - 12.30	11.00 - 12.45	11.00 - 12.30	11.00 - 12.30
Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
12.30 - 14.00	12.30 - 14.00	12.45 - 14.15	12.30 - 14.00	12.30 - 14.00
Afternoon Parallel Session 1 4 sessions with 5 talks 15'+3' each	Afternoon Parallel Session 1 3 sessions with 5 talks 15'+3' each	Excursion 15.00 - 18.00	Plenary Session 5	Plenary Session 8
14.00 - 15.30	14.00 - 15.30		14.00 - 15.45	M. Lindner: Closing remarks 5' 14.00 - 15.05
Coffee break	Coffee Break		Coffee Break	
15.30 - 16.00	15.30 - 16.00			15.45 - 16.15
Afternoon Parallel Session 2 4 sessions with 6 talks 15'+3' each	Afternoon Parallel Session 2 4 sessions with 5 talks 15'+3' each			
16.00 - 17.50	16.00 - 17.50		BBQ	
Welcome Reception				
18.00 - 21.00			17.00 - 21.00	

All coffee breaks, lunches, reception, BBQ → at MPIK

Practical information: Shuttle buses

Shuttel departure / arrival from parking lot in front of:

Premier Inn Heidelberg City
Kurfürsten-Anlage 23
69115 Heidelberg
Departure time: 08:30
Look for "PASCOS 2022" signs

Intermediate stop:
Bus stop at Alois-Link-Platz
Departure time 08:40

Other options

Public transport:

- bus number 39
- schedule in front of lecture hall

Taxi:

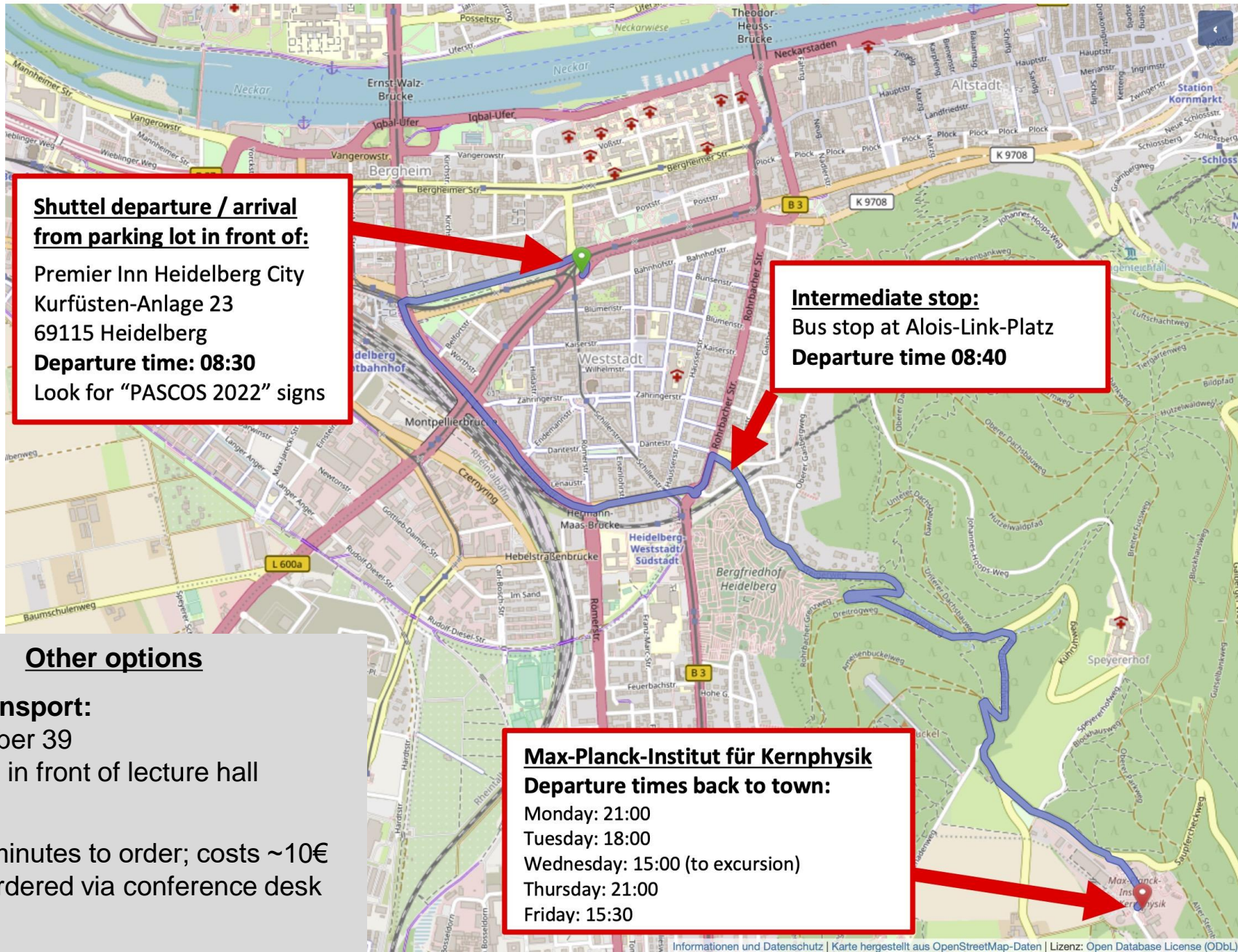
- takes 5 minutes to order; costs ~10€
- can be ordered via conference desk

Locals....

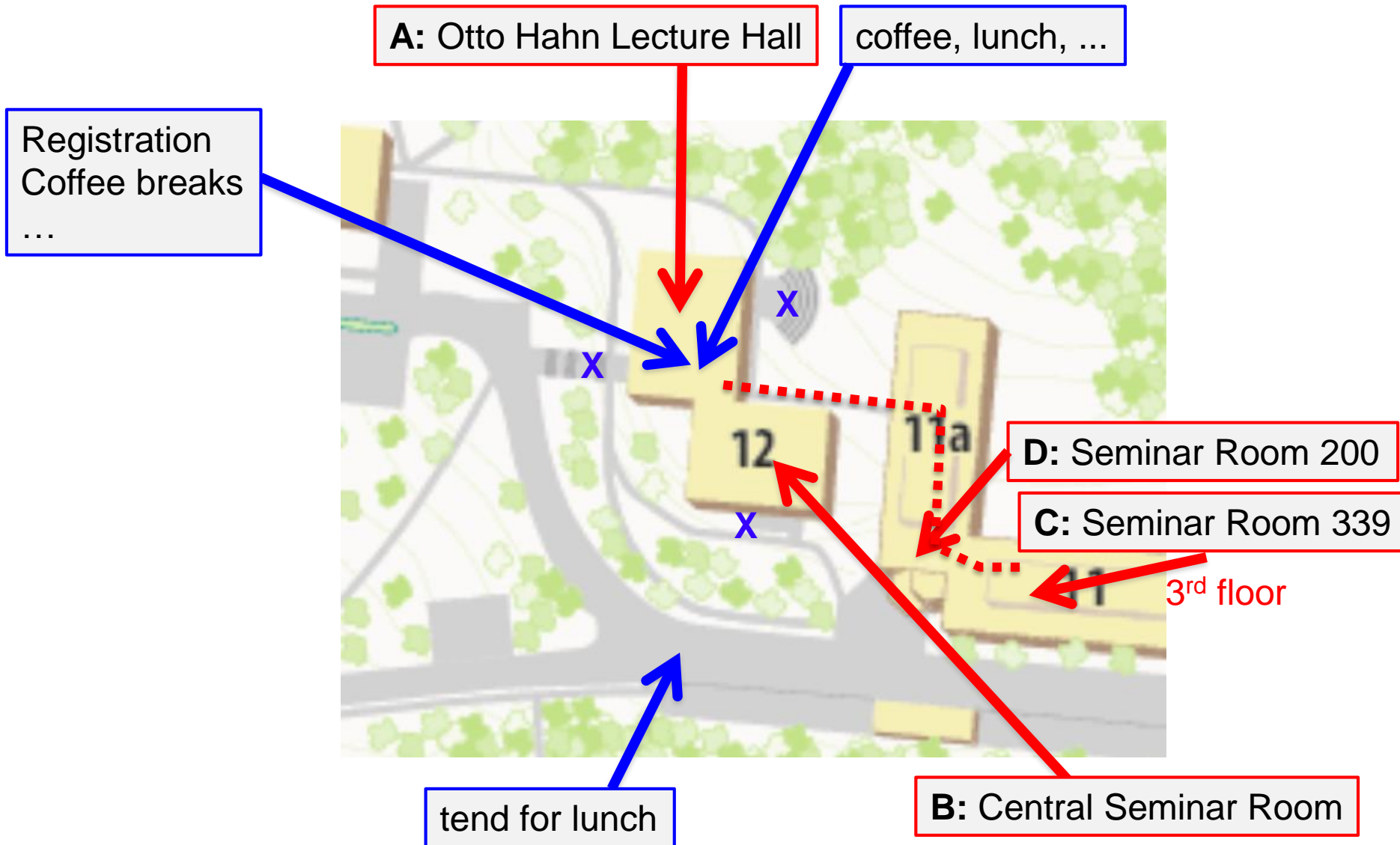
Max-Planck-Institut für Kernphysik

Departure times back to town:

Monday: 21:00
Tuesday: 18:00
Wednesday: 15:00 (to excursion)
Thursday: 21:00
Friday: 15:30



Conference Venue



Practical information:

Talks:

- All talks → **uploaded to Indico** or sent to wsorg@mpi-hd.mpg.de <1hr before

Coffee breaks, lunches, reception, BBQ → at the conference site

Internet:

- eduroam → just connect
- ask at conference desk for personal access code

Sessions:

- Session chairs → stay in time ; shown times **INCLUDE** discussion time
- Plenary: Wait for microphone for questions / comments
- There is a local person in every session who can help

Conference picture:

- Will be taken on Wednesday at 14:20 (after lunch, before excursion)

Excursion:

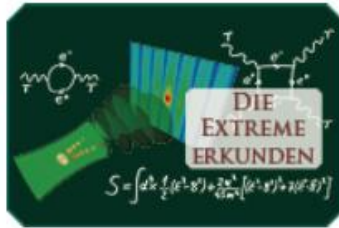
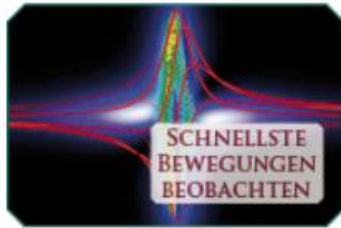
- announcements with details to come

Some Information on MPIK

MPG – Max Planck Gesellschaft:

~80 Max-Planck institutes (MPIs), 2-8 divisions each, ~16.000 employees, budget ~1.6Bn€

MPIK: 5 divisions, ~450 people, physics program around two themes



Particle and astroparticle physics ↔ quantum dynamics

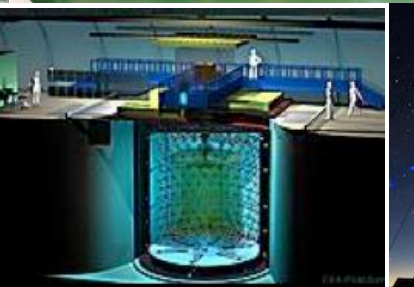
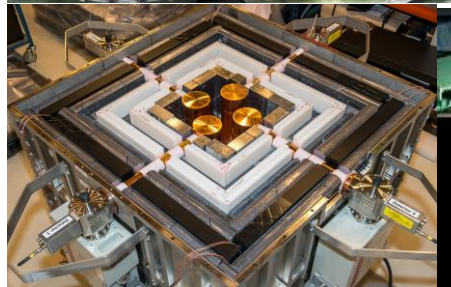
various well known activities in the past: **GALLEX, GNO, HdM, Borexino, Double Chooz, ...**

HESS, CTA, LHCb, GERDA, Double Chooz, LEGEND200, STEREO, CONUS

XENON100, XENON1T, ...nT

theory:

- neutrinos
- dark matter
- beyond the Standard Model
- early universe
- high energy astrophysics



Today's Program

Mon 25/07

09:00	Registration <i>Max Planck Institute for Nuclear Physics, Heidelberg, Germany</i>	09:00 - 10:00
10:00	Coffee Break <i>Max Planck Institute for Nuclear Physics, Heidelberg, Germany</i>	10:00 - 10:30
	Welcome Remarks <i>Main Lecture Hall</i>	<i>Manfred Lindner</i> 10:30 - 10:45
	Axion with and without gravity <i>Main Lecture Hall</i>	<i>Gia Dvali</i> 10:45 - 11:20
11:00	New Aspects of Cosmic Inflation <i>Main Lecture Hall</i>	<i>Konstantinos Dimopoulos</i> 11:20 - 11:50
12:00	XENONnT: First electronic recoil results from Science Run 0 <i>Main Lecture Hall</i>	<i>Andrii Terliuk</i> 11:50 - 12:25
13:00	Lunch Break <i>Max Planck Institute for Nuclear Physics, Heidelberg, Germany</i>	12:30 - 14:00

14:00	Composite Dark Matter an... <i>Saereh Najjari</i>	Flavor hierarchies, flavor ... <i>Ben Stefanek</i>	Applying AdS/QCD metho... <i>Yang Liu</i>	Inflation with two-form fiel... <i>Ippei Obata</i>
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	Minimal realization of light	Neutrino mass and flavor	Minimal SU(6) Gauge Higgs	Quintessential Inflation in
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Enjoy PASCOS 2022!