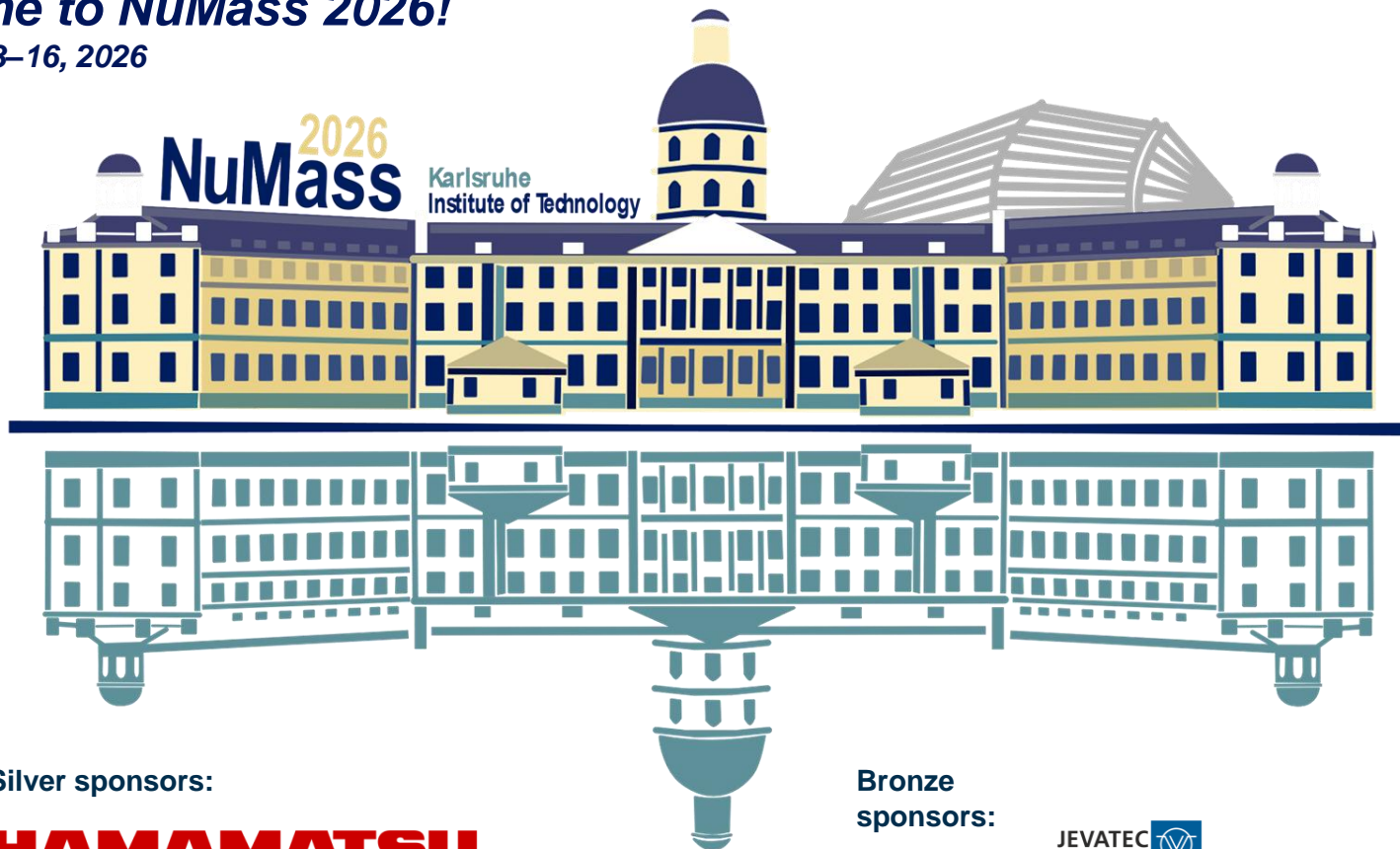


Welcome to NuMass 2026!

KIT, April 13–16, 2026



Silver sponsors:

HAMAMATSU

PHOTON IS OUR BUSINESS



Bronze sponsors:

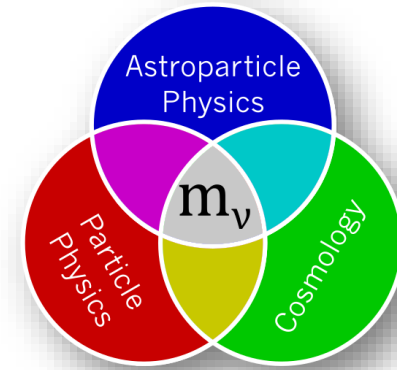


International network: Absolute neutrino mass scale from nuclear beta decay and electron capture

- Mass scale of neutrinos is one of the fundamental open question
- Only model independent laboratory approach:
 ^3H β -decay & ^{163}Ho electron capture

Objective of the “NuMass” workshop series:

- Foster the discussion between theorists and experimentalists
- Bring together different experiments and ideas
- Define prospects of extending the physics reach



PROJECT 8



H  **LMES**

 **QTNM**
Quantum Technologies for Neutrino Mass



The Trento Era - the first three editions

2016: April 4-8

2018: March 26-30

2020: February 10-14

**ECT* - Villa Tambosi,
Trento, Italy**



2020



The Post-Trento Era - expanding the capacity

2022:
June 6-10
University of
Milano-Bicocca,
Italy
INFN, UniMiB

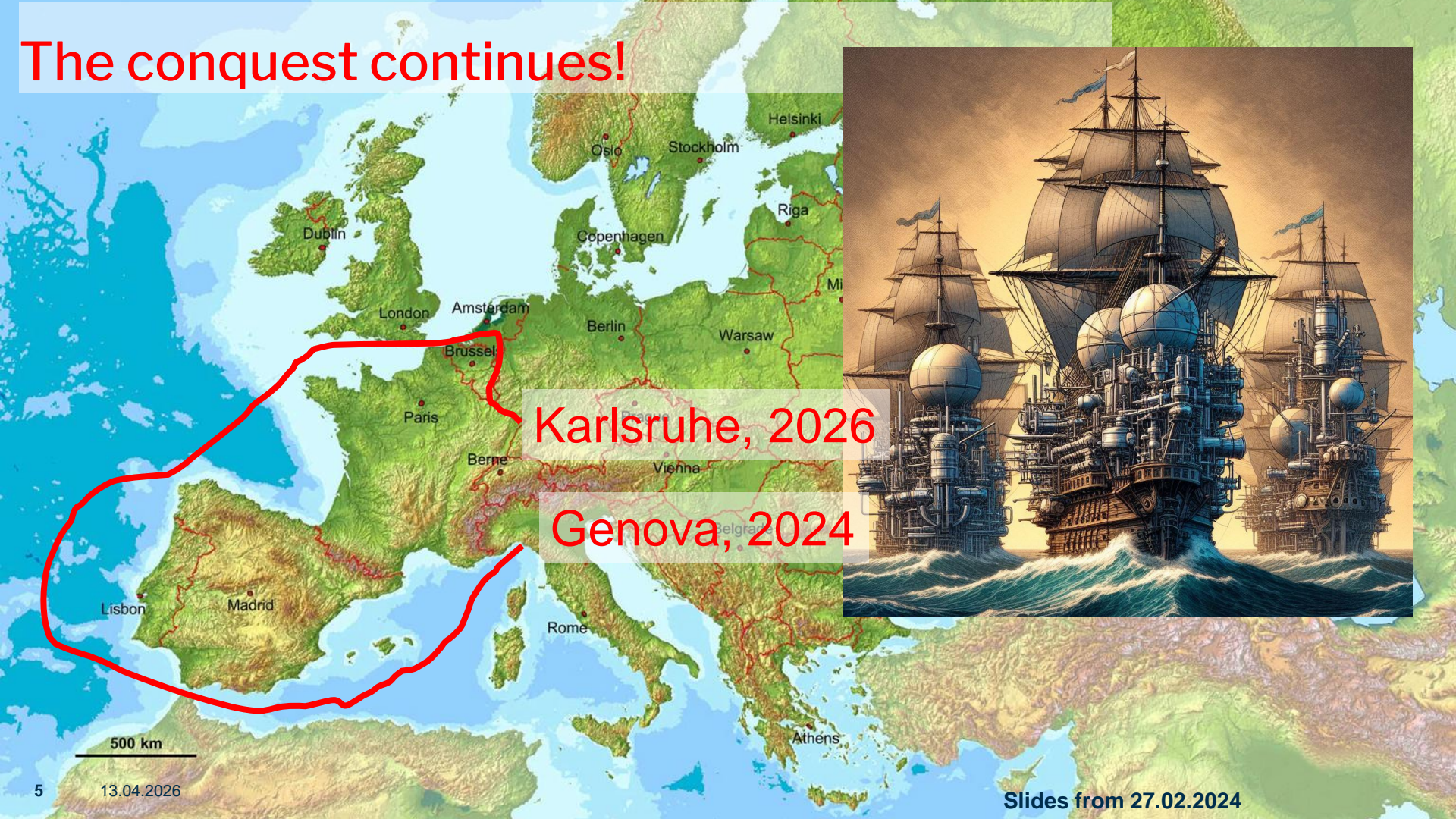
2024:
Feb. 26
- March 1
Physics
Department
University of
Genoa, Italy
INFN, UniGen

2026:
April 13-16
Campus South,
Karlsruhe
Institute of
Technology,
Germany
KIT

**Genova,
2024**



The conquest continues!

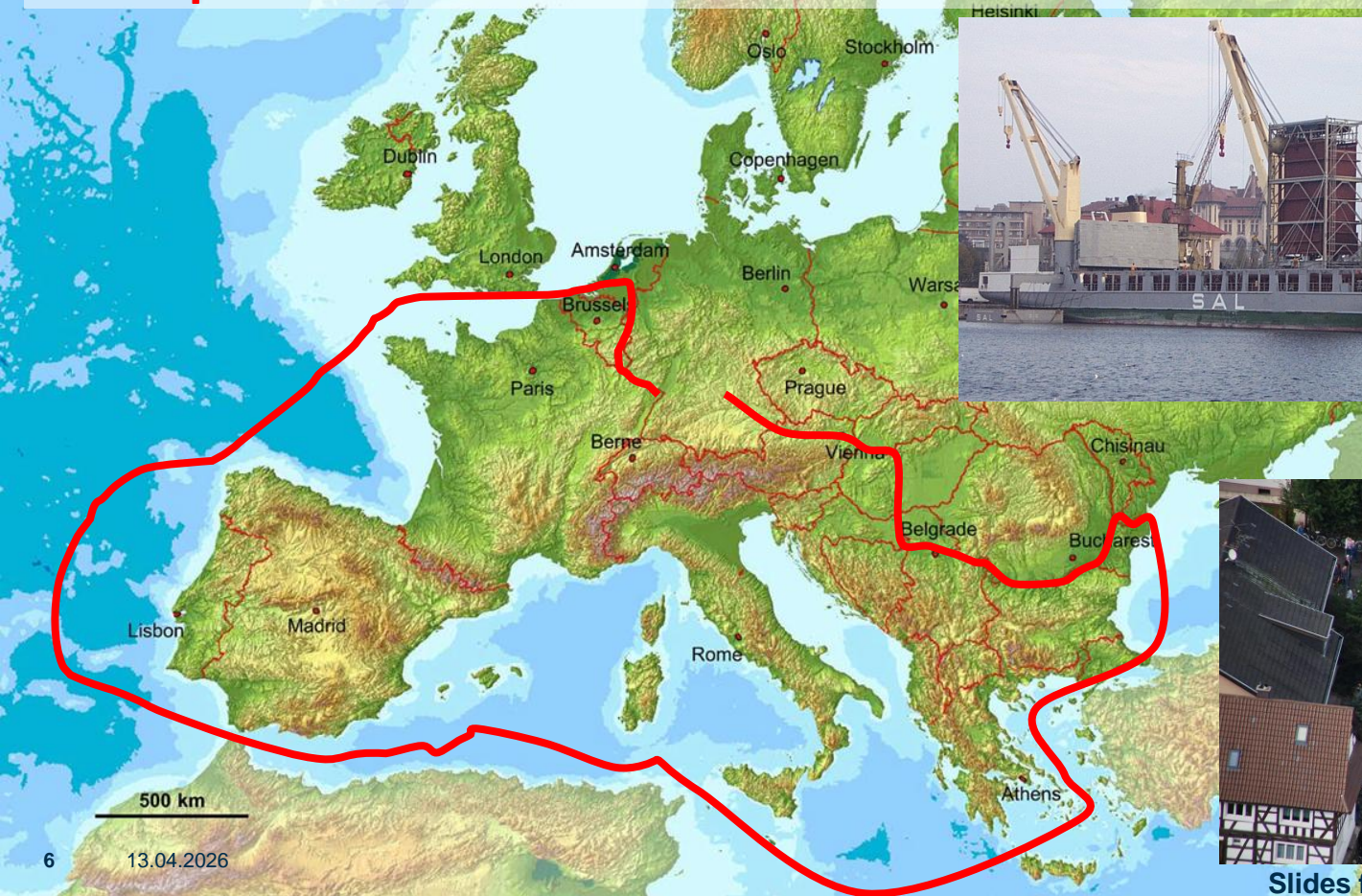


Karlsruhe, 2026

Genova, 2024



Twentieth anniversary of the main spectrometer transport

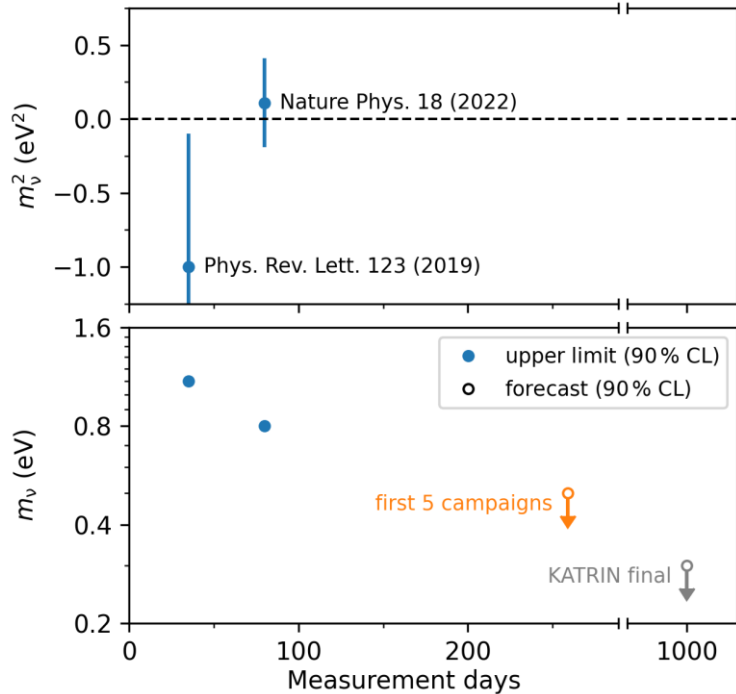


2006



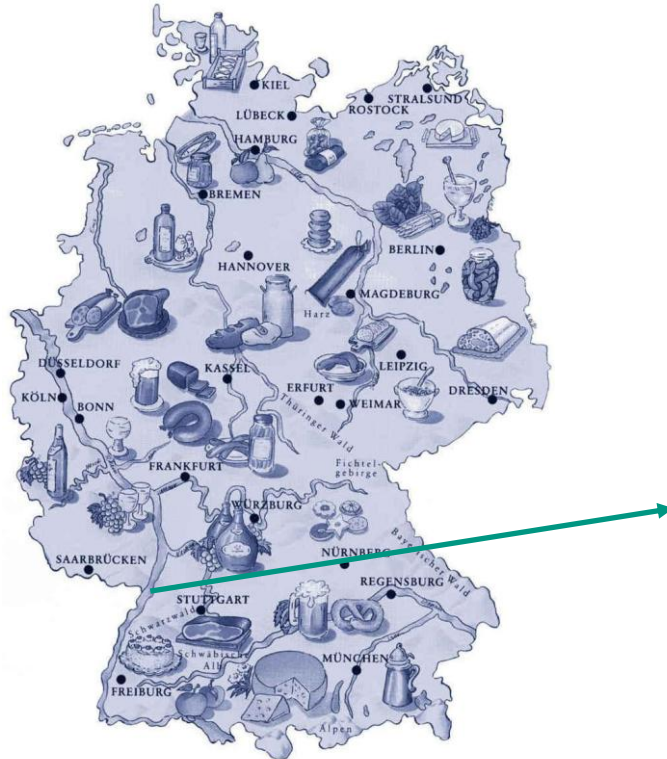
Slides from 27.02.2024

Let us celebrate the conclusion of data taking with KATRIN in integral mode



[/www.mikemayer.photography/](http://www.mikemayer.photography/)

Welcome to Karlsruhe



Baroque palace of Karlsruhe



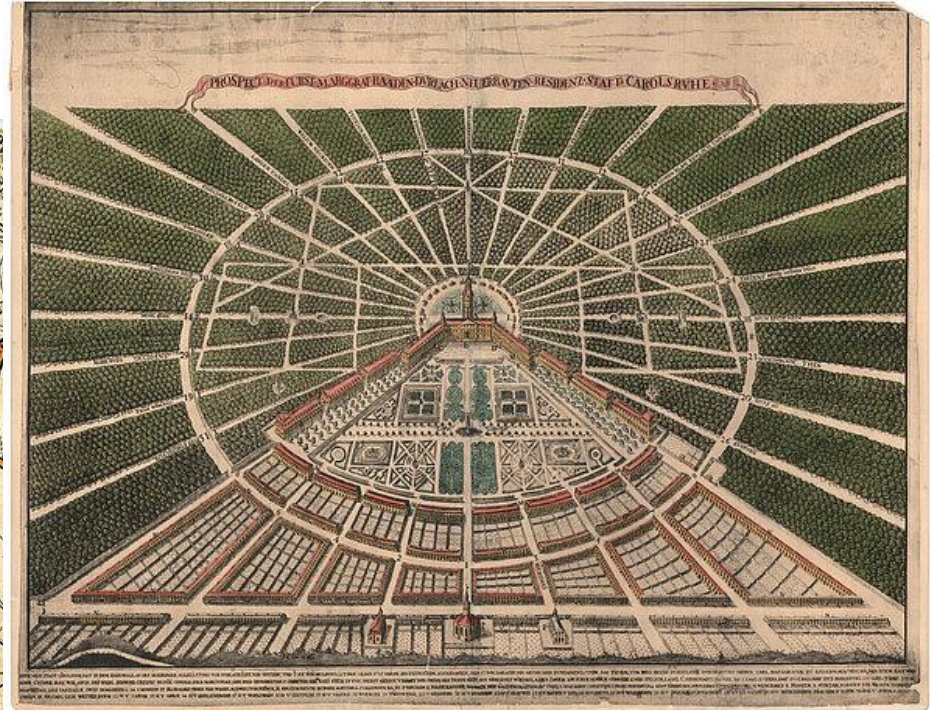
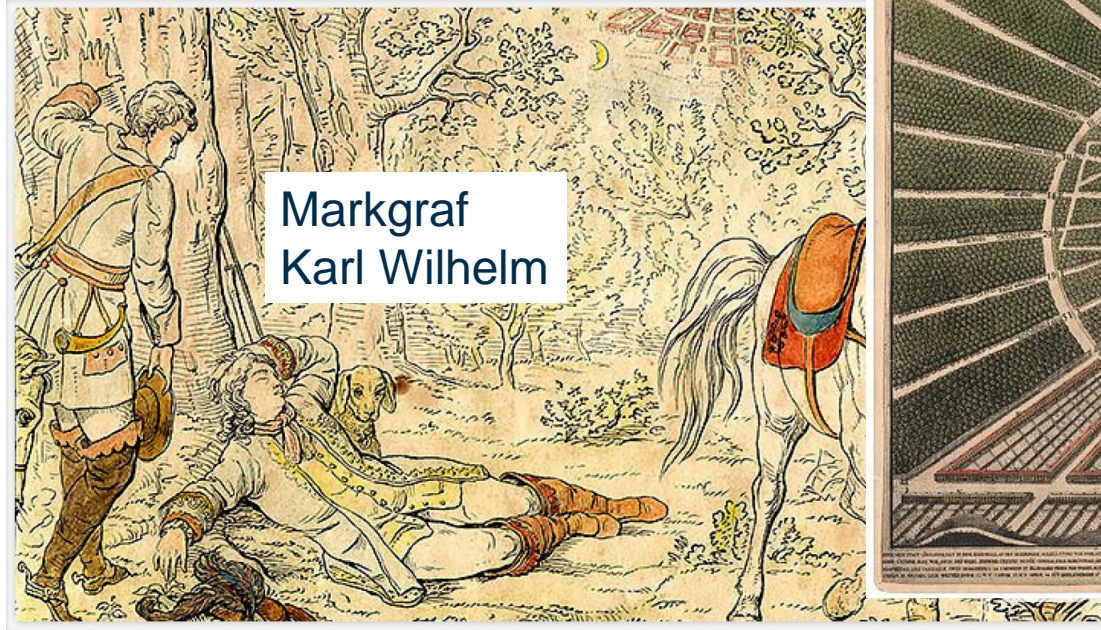
[/www.mikemayer.photography/](http://www.mikemayer.photography/)

Welcome to Karlsruhe



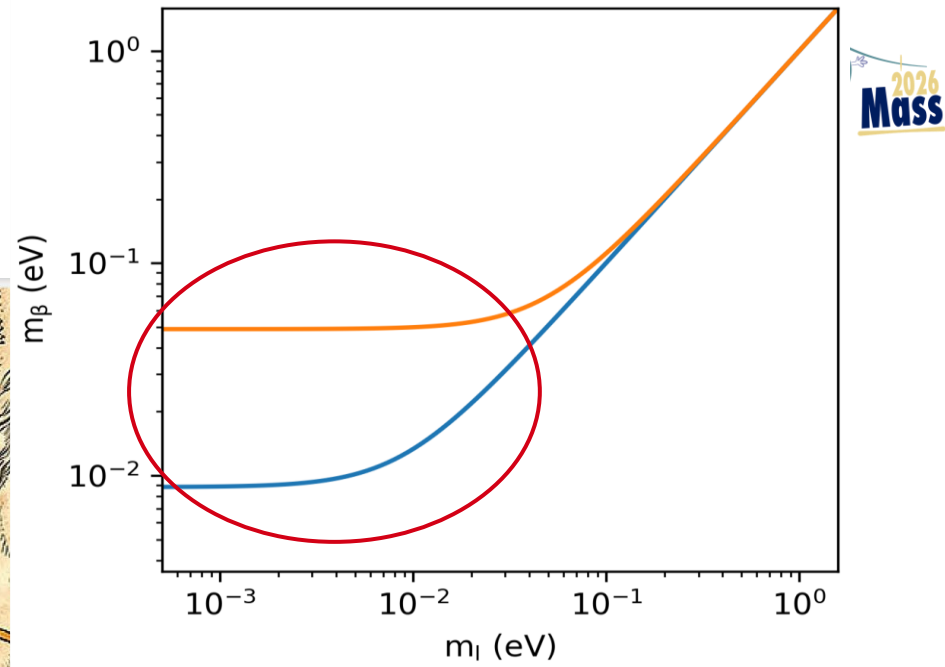
~300 k inhabitants, „capital of Baden region“
 seat of highest Courts of Germany,
 good wine and many local breweries

1715: Karl's Dream



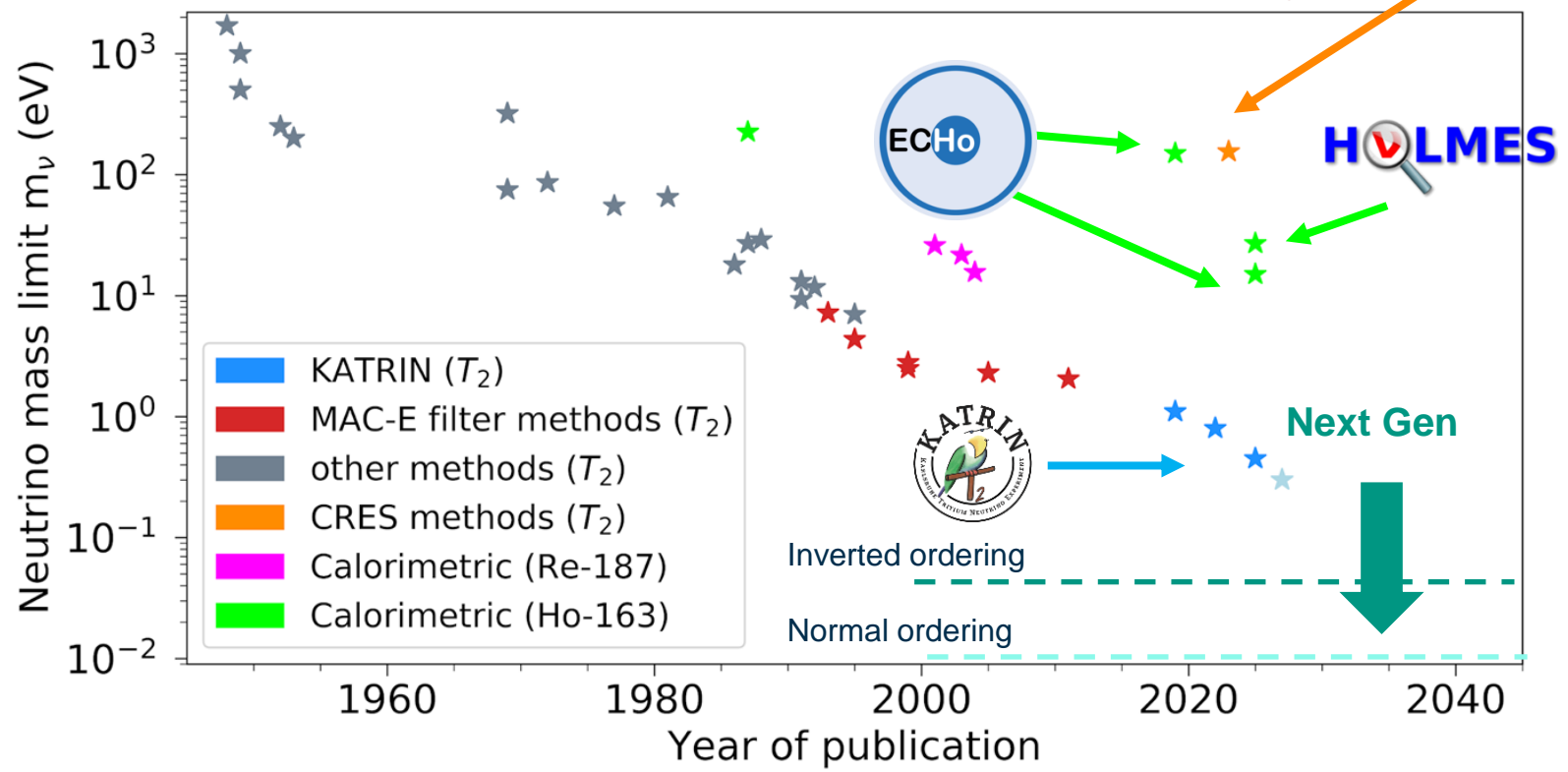
“Karls Ruhe” (Karl’s Rest) Foto: Stadtarchiv Karlsruhe 8/PBS I 555

2026: NuMass Dream



“Karl's Ruhe” (Karl's Rest) Foto: Stadtarchiv Karlsruhe 8/PBS I 555

History of direct neutrino mass measurement



Many thanks to the sponsors for a generous support



Silver sponsors

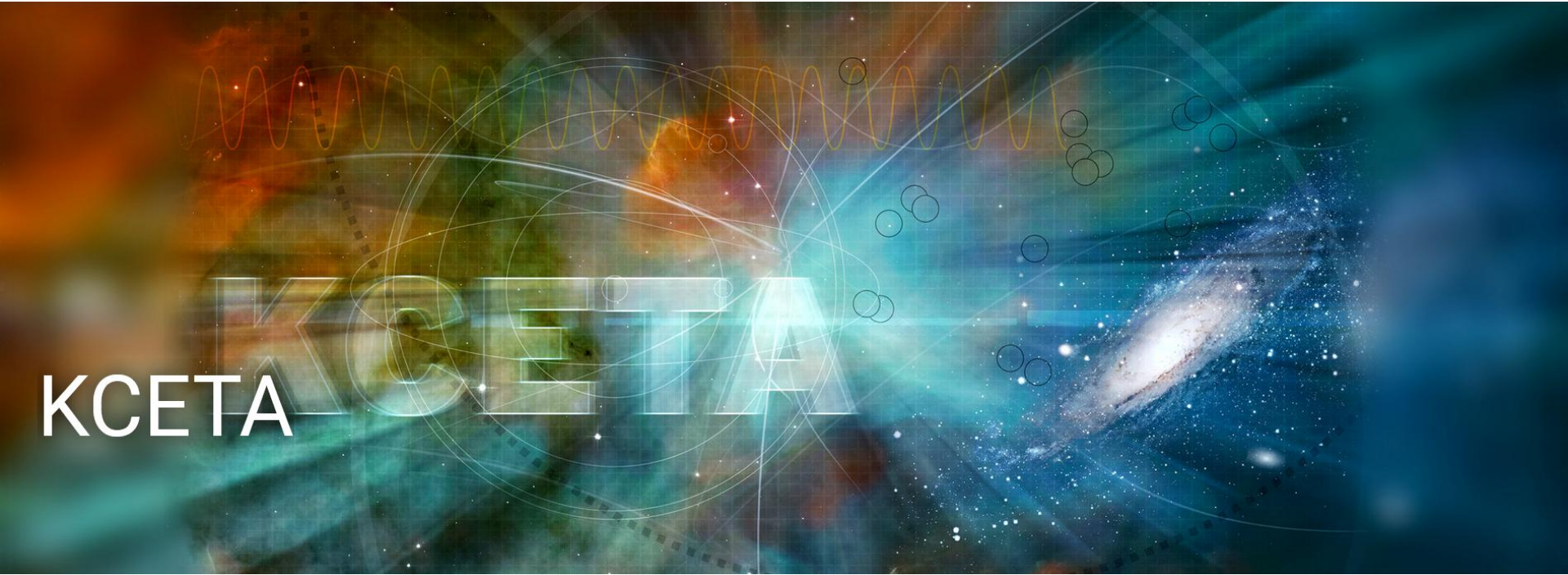


Please meet them at the booth during the coffee break, the poster session, lunch and during the social activities

Bronze sponsors



Thanks to KIT Center Elementary Particle and Astroparticle Physics



Programme Advisory Committee

- **Outlining of the conference (main talks, topical focus sessions, poster session, invited talks)**
- **Suggestion and contacting of speakers**
- **Communication back to the collaborations**

Kathrin Valerius



Juliana Stachurska



Ruben Saakyan



Elena Ferri



Loredana Gastaldo



Nicolo de Groot



Magnus Schlösser, Chair

Local organisation committee

Conference chairs: Magnus Schlösser (IAP - KIT), Kathrin Valerius (ETP - KIT)

Technical chair: Emma Malcherek (IAP - KIT)

LOC Members

Marion Behechti (ETP - KIT), Yanina Biondi (IAP - KIT), Fiona Braun (IAP - KIT), Carlotta Buchner, (IAP - KIT), David Frese (IAP - KIT), Chloé Goupy (MPIK), Nicholas Tan Jerome (IPE - KIT), Neven Kovac (IAP - KIT), Alexey Lokhov (ETP - KIT), Beatrix von Puttkammer (IAP -KIT), Rudolf Sack (IAP - KIT), Markus Schultz-Ritz (IAP - KIT), Thomas Thümmeler (IAP - KIT), Sarah Untereiner (IAP - KIT), Joachim Wolf (ETP - KIT), Marcus Lai (IAP - KIT)

BBQ-Chefs

Jörg Bohn, Adalbert Braun, Monika Kaiser, Daniel Kling, Judith Schneider

Workshop philosophy

~120 participants

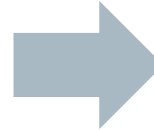
6x Overview talks (50+10)

36x Posters (two sessions, Mon / Tue)

11x Focused Topical Session (50+25)

3x Invited Talks (adjacent fields) (50+10)

„Discussion-heavy conference, family-atmosphere, think about cooperations, but challenge the others“



Organized by cross-collaboration working groups

- Introduce the topic to a broad audience
- Summarize recent developments across experiments
- Serve as a basis for extended and structured discussion



Agenda Monday

	Registration: Registration (1)	
	<i>KIT Campus South</i>	08:30 - 09:00
09:00	Announcements and introductions: Welcome and introduction (4)	
	<i>KIT Campus South</i>	09:00 - 09:30
	ECHO Overview	<i>Loredana Gastaldo</i>
10:00		
	<i>KIT Campus South</i>	09:30 - 10:30
	Coffee break	
	<i>Gaede foyer, KIT Campus South</i>	10:30 - 11:00
11:00	HOLMES Overview	<i>A. Nucciotti</i>
	<i>KIT Campus South</i>	11:00 - 12:00
12:00	Project8 Overview	<i>Dr Hannah Binney</i>
	<i>KIT Campus South</i>	12:00 - 13:00
13:00	Lunch break	
14:00		
	<i>KIT Campus South</i>	13:00 - 14:30

	KATRIN Overview	<i>Chloe Goupy</i>
15:00		
	<i>KIT Campus South</i>	14:30 - 15:30
	QTNM Overview	<i>Seb Jones</i>
16:00		
	<i>KIT Campus South</i>	15:30 - 16:30
	Coffee break	
	<i>Gaede foyer, KIT Campus South</i>	16:30 - 17:00
17:00	Posters: Poster session I (3)	
18:00		
	<i>Gaede Foyer, KIT Campus South</i>	17:00 - 18:30
	Evening activities: Barbecue (4)	
19:00		
20:00		
	<i>KIT Campus South</i>	18:30 - 21:00
21:00		

Agenda Tuesday

	Announcements and introductions: Announcements for the day (4) <i>KIT Campus South</i> 08:50 - 09:00
09:00	Overview: Collaboration overview talks - IV (2) <i>KIT Campus South</i> 09:00 - 10:00
10:00	Focused Topical Session: Background and systematics (5) <i>KIT Campus South</i> 10:00 - 11:15
11:00	Coffee break <i>Gaede foyer, KIT Campus South</i> 11:15 - 11:45
12:00	Focused Topical Session: Holumium source (5) <i>KIT Campus South</i> 11:45 - 13:00
13:00	Lunch break <i>Mensa am Adenauerring, KIT Campus South</i> 13:00 - 14:30
14:00	

15:00	Focused Topical Session: Front-end electronics (5) <i>KIT Campus South</i> 14:30 - 15:45
16:00	Coffee break <i>Gaede foyer, KIT Campus South</i> 15:45 - 16:15
17:00	Focused Topical Session: Tritiated graphene (5) <i>KIT Campus South</i> 16:15 - 17:05
18:00	Posters: Poster session II (3) <i>Gaede Foyer, KIT Campus South</i> 17:05 - 18:35 With pizza
19:00	Evening activities: Black light minigolf (4) <i>KIT Campus South</i> 18:35 - 21:05
20:00	
21:00	

Agenda Wednesday

	Announcements and introductions: Announcements and introductions (4)	
	<i>KIT Campus South</i>	08:35 - 08:45
09:00	Invited talks: Double beta decay (6)	
	<i>KIT Campus South</i>	08:45 - 09:45
10:00	Focused Topical Session: Atomic tritium (5)	
	<i>KIT Campus South</i>	09:45 - 11:15
11:00	Coffe break	
	<i>Gaede foyer, KIT Campus South</i>	11:15 - 11:45
12:00	Focused Topical Session: RF-based methods (5)	
	<i>KIT Campus South</i>	11:45 - 13:00
13:00	Lunch break	
	<i>Mensa am Adenauerring, KIT Campus South</i>	13:00 - 14:30

15:00	Focused Topical Session: Calibration methods (5)	
	<i>KIT Campus South</i>	14:30 - 15:45
16:00	Coffee break	
	<i>Gaede foyer, KIT Campus South</i>	15:45 - 16:15
17:00	Focused Topical Session: Data analysis (5)	
	<i>KIT Campus South</i>	16:15 - 17:30
18:00	Invited talks: Cryogenic detector applications in observational cosmology and astrophysics (6)	
	<i>KIT Campus South</i>	17:30 - 18:30
19:00	Evening activities: Conference Dinner - Mariannes Flammkuchen (4)	
20:00		
21:00	<i>KIT Campus South</i>	18:30 - 21:00

Agenda Thursday

	Announcements and introductions: Announcements and introductions (4)	
	<i>KIT Campus South</i>	08:35 - 08:45
09:00	Invited talks: Neutrino-mass from cosmology (6)	
	<i>KIT Campus South</i>	08:45 - 09:45
10:00	Focused Topical Session: Wild Card / New Ideas (5)	
11:00	<i>KIT Campus South</i>	09:45 - 11:25
	Coffee break	
	<i>Gaede foyer, KIT Campus South</i>	11:25 - 11:50
12:00	Focused Topical Session: Quantum sensors (5)	
13:00	<i>KIT Campus South</i>	11:50 - 13:05
	Lunch break	
14:00		
13:04:2026	<i>KIT Campus South</i>	13:05 - 14:35

15:00	Focused Topical Session: Strategy and synergies (5)	
	<i>KIT Campus South</i>	14:35 - 15:50
16:00	Coffee break	
	<i>Gaede Foyer, KIT Campus South</i>	15:50 - 16:20
	NuMass-prize session	<i>Kathrin Valerius et al.</i>
	<i>KIT Campus South</i>	16:20 - 16:35
17:00	Wrap-up: Wrap-up talk (7)	
	<i>KIT Campus South</i>	16:35 - 17:15
	Announcements and introductions: Goodbye (4)	
	<i>KIT Campus South</i>	17:15 - 17:30

Data upload

Please upload your presentation to INDICO

and/or drop it into this dump

<https://bwsyncandshare.kit.edu/s/3CDCJk4ANE3bqrD>

Please do this before until 8:00 in the morning of the session



Poster session and voting

Modus operandi

Set up the poster for the entire duration of the workshop. (Mo-Th)

Present your poster (at least) during the **suggested session** (see indico or brochure)

Poster prize

All early career scientists are eligible for the poster prize

All participants can cast **three votes** (but only once!!!) using this poll
<https://forms.gle/D9H9fFh8bAPgavjA9>



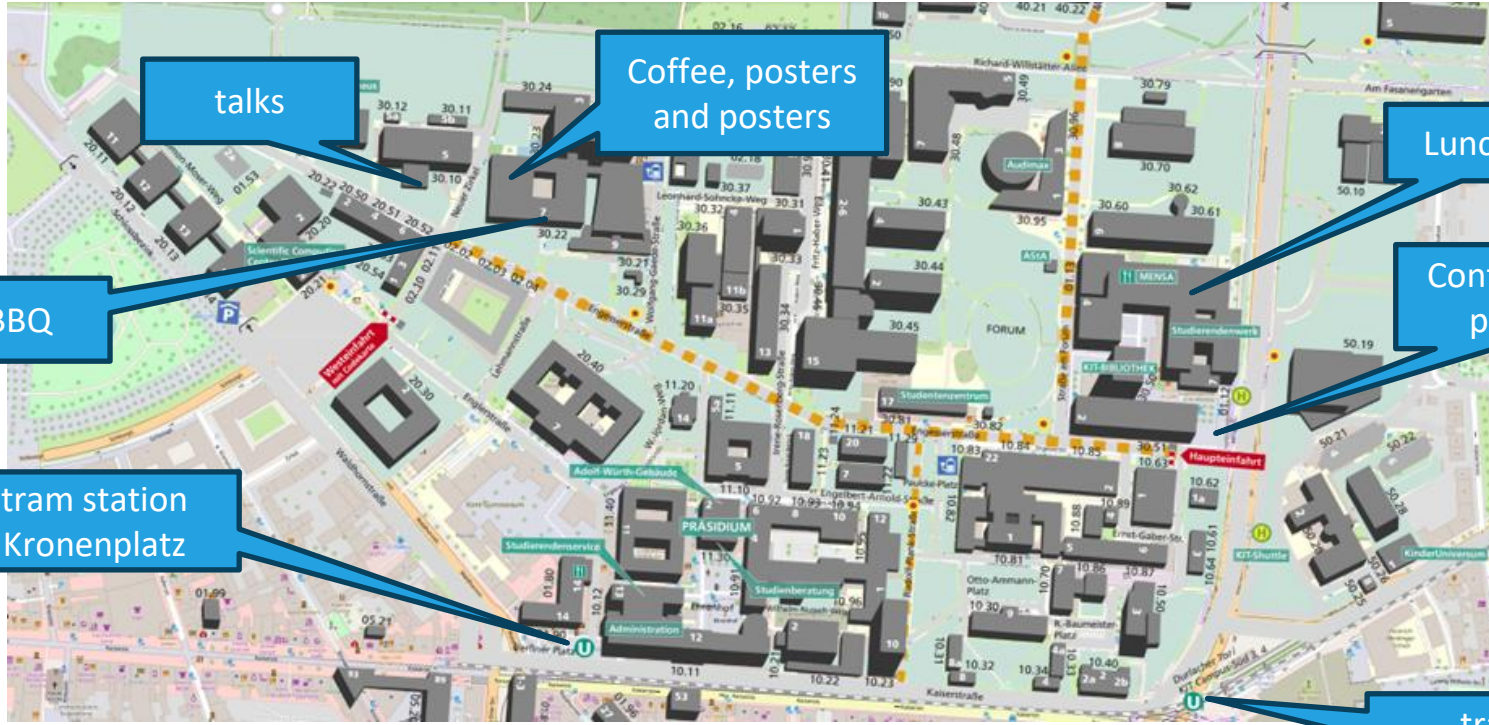
Conference Picture

The picture will be made on Wednesday
close to the canteen (before lunch)

Details in announcement session of
Wednesday



Campus Overview



BBQ

talks

Coffee, posters and posters

Lunch*

Conference photo

tram station Kronenplatz

tram station Durlacher Tor

***bring your vouchers!**

Demokritos students



Join an
International
Physics Workshop on
Neutrino Mass



13-16 April 2026

- Join conference
- Introduction talks and guided tour
- Mentors to help navigating the conference

Kohler	Nicolas	St. Paulusheim Bruchsal
Klöfer	Romi	St. Dominikus-Gymnasium Karlsruhe
Fellmann	Theresa	Kurt-Huber-Gymnasium Gräfelfing
Chanina	Kristiyana	Thomas-Mann-Gymnasium Stutensee
Stemmermann	Anja	Leibniz-Gymnasium Östringen
Eisenbiegler	Levin	Element-i Gemeinschaftsschule Karlsruhe
Rumpe	Molana	Tassilo Gymnasium Simbach am Inn
Herzog	Oskar	Max-Planck-Gymnasium Karlsruhe

Final words



Good to know...

Social activities

Good news: Real Karlsruhe experience



Good to know...

Social activities

Good news: Real Karlsruhe experience

Bad news: changes in public transportation routes, closures and construction sites...



KVV route planner



Good to know...

Social activities

Tuesday

Neon Karlsruhe (Tuesday) <https://neon-karlsruhe.de/>

Time: We have reserved the venue from 7:15 PM to 9:45 PM.

Location:

Neon Karlsruhe
Daxlander Straße 68
76185 Karlsruhe

Eckenerstraße

How to get there:

Nearest tram stops: ~~Stadtwerke~~ or ~~Eckenerstraße~~ (<https://www.kvv.de/>)

Important Information:

- A game with a team of 5 players takes approximately 2 hours
- A game with 2 players takes approximately 45 minutes



Neon



Good to know...

Social activities

Tuesday

Neon Karlsruhe (Tuesday) <https://neon-karlsruhe.de/>

Time: We have reserved the venue from 7:15 PM to 9:45 PM.

Location:
Neon Karlsruhe
Daxlander Straße 68
76185 Karlsruhe

Eckenerstraße

How to get there:

Nearest tram stops: ~~Stadtwerke~~ ~~Eckenerstraße~~ (<https://www.kvv.de/>)

Important Information:

- A game with a team of 5 players takes approximately 2 hours
- A game with 2 players takes approximately 45 minutes

S2 (Rheinstrandsiedlung)	Karlsruhe Kronenplatz	Eckenerstraße
	06:48 pm	07:00 pm
	06:58 pm	07:10 pm

	07:48 pm	08:00 pm
	08:00 pm	08:12 pm
	08:20 pm	08:32 pm

6 min by
foot



Good to know...

Social activities

Tuesday

Neon Karlsruhe (Tuesday) <https://neon-karlsruhe.de/>

Time: We have reserved the venue from 7:15 PM to 9:45 PM.

Location:

Neon Karlsruhe
Daxlander Straße 68
76185 Karlsruhe

Eckenerstraße

How to get there:

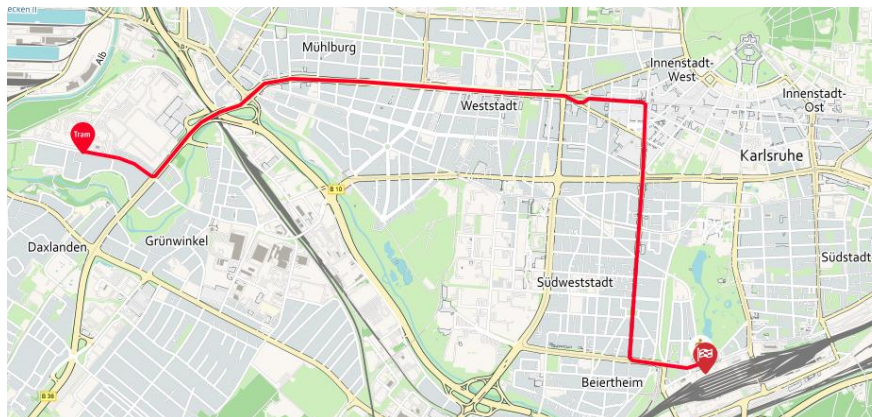
Nearest tram stops: ~~Stadtwerke~~ ~~Eckenerstraße~~ (<https://www.kvv.de/>)

Important Information:

- A game with a team of 5 players takes approximately 2 hours
- A game with 2 players takes approximately 45 minutes

3 (Rintheim über Hbf)	Karlsruhe Stadtwerke	Karlsruhe Hauptbahnhof
	08:40 pm	09:02 pm
	09:00 pm	09:22 pm
	09:20 pm	09:42 pm

	00:40 am	01:02 am
	04:10 am	04:32 am



Good to know...

Social activities

Wednesday

Mariannes Flammkuchen (Wednesday) <https://mariannes-flammkuchen.de/>

Time: 7:30 PM → Food till 10:30 pm

Location:
Marianne's Flammkuchen / KETV
Kriegsstraße 300
76185 Karlsruhe

How to get there:
Nearest tram stop: *Kühler Krug* (short walk to the restaurant) (<https://www.kvv.de/>)

Menu: All you can eat Flammkuchen

Important Information:

- If you are a student, please bring a *valid student ID* to receive the discount



MENU



Good to know...

Social activities

Wednesday

Mariannes Flammkuchen (Wednesday) <https://mariannes-flammkuchen.de/>

Time: 7:30 PM

Location:

Marianne's Flammkuchen / KETV
Kriegsstraße 300
76185 Karlsruhe

How to get there:

Nearest tram stop: *Kühler Krug* (short walk to the restaurant) (<https://www.kvv.de/>)

Menu: All you can eat Flammkuchen

Important Information:

- If you are a student, please bring a *valid student ID* to receive the discount

	Karlsruhe Kronenplatz	Händelstraße
S51 (Germersheim, Bahnhof)	07:05 pm	07:13 pm
S2 (Rheinstrandsiedlung)	07:08 pm	07:16 pm
S2 (Rheinstetten)	07:18 pm	07:26 pm

12 min by
foot

