

We welcome you to Week 2 of

Lattice@ 2024

The goal of this workshop is the **exchange and discussion of ideas**.

Physics

Topic: **Weak Matrix Elements**

- 11 Talks (45+15)
- [TH-Colloquium](#) by Amy Nicholson (Wed.2pm)
- 6 *formal* discussions (1h)
- Time table on [indico](#)

Social events

- *Informal* discussions, a.k.a. coffee breaks (outside main auditorium, a.k.a. Mezzanine)
- Reception (today 6pm) in R1
- Workshop dinner (Thurs) at [Le Figuier](#) (on the tram line)

Mattia Dalla Brida, Michele Della Morte, Matteo Di Carlo, Felix Erben, Elvira Gamiz, Andreas Jüttner, Simon Kuberski, Amy Nicholson, Agostino Patella, J. Tobias Tsang.

CERN TH Lattice group



Matteo Di Carlo



Felix Erben



Jacob Finkenrath



Andreas Jüttner



Simon Kuberski

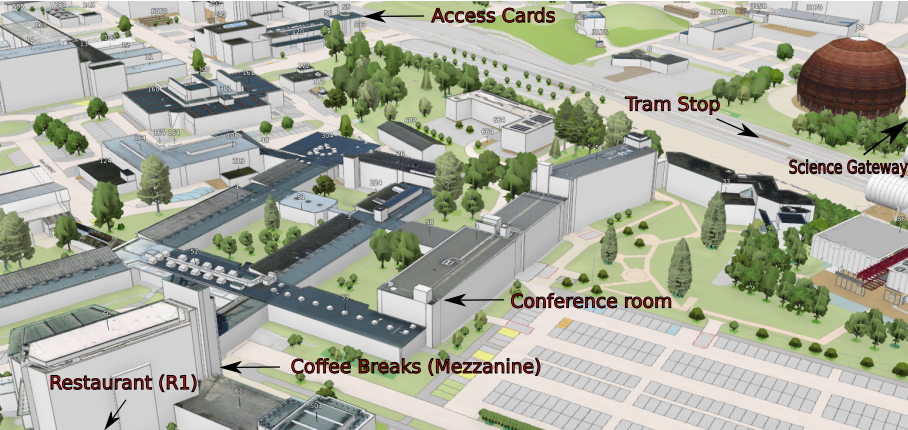


Tobi Tsang



Associate
Alexei Bazavov

Getting around CERN



Recap of Week 1 - Inverse Problems

- Many topics:
(thermal QCD matter, spectral reconstruction, R -ratio and $g - 2$, PDFs, inclusive decays, scattering amplitudes)
- Many discussions
- ~ 40 participants
- sufficient subsistence
(reception, coffee breaks & fruit and croissants, fondue in July)



A lot to live up to in Week 2 - but we'll try!!

Line-up for this week

Monday, 15 July 2024		Tuesday, 16 July 2024		Wednesday, 17 July 2024		Thursday, 18 July 2024		Friday, 19 July 2024	
10:00	Registration and Coffee	09:30	Status of exclusive decays - Tobias Tsang (CERN)	09:30	Developments in $K_L^0 \rightarrow \mu^+ \mu^-$ from lattice QCD - En-Hung Chao (JGU Mainz)	09:30	QED effects - Matteo Di Carlo	09:30	Long distance physics and hadronic decays - Maxwell Hansen
		10:30	Coffee break	10:30	Coffee break	10:30	Coffee break	10:30	Coffee break
11:25	Welcome	11:30	Interpolating to the b - Simon Kuberski	11:30	Axial form factors of the nucleon - Sara Collins	11:30	Radiative decays - Chris Sachrajda	11:30	Semi-leptonic decays with unstable final states - Luka Leskovec (Jozef Stefan Institute)
11:30	Pheno overview of $B \rightarrow D^*$ - Marzia Bordone (CERN)								
12:30	Lunch	12:30	Lunch	12:30	Lunch	12:30	Lunch	12:30	Lunch
14:00	Comparison of existing results for $B \rightarrow D^*$	14:00	Hadronic matrix elements from Gradient Flow methods - Andrea Shindler	14:00	TH-Colloquium - Amy Nicholson	14:00	Discussion of QED-related Challenges - Norman Christ	14:00	Discussion: Challenges in future directions for form factors - Felix Benjamin Erben
15:00	Coffee break	15:00	Coffee break	15:00	Coffee break	15:00	Coffee break	15:00	Closing and Departure
16:00	Discussion of B to D^* - Andreas Juttner (CERN)	16:00	Discussion of systematic effects in heavy-quark decays - Rainer Sommer	16:00	Discussion	16:00	Discussion		

M $B \rightarrow D^* \ell \nu$

T heavy-light decays

W rare decays & nucleons

T QED-corrections

F hadronic decays & vector final states

(↑ includes 2 currently unassigned discussion sessions to be used as overflow/for topics that come up during the workshop. Let us know!)

Let's get started!!