

3rd Top Quark Physics at the Precision Frontier

This workshop is part of the [Top Quark Physics at the Precision Frontier](#) workshop series, which started in 2018. The 3rd iteration has a strong focus on **New probes** such as **entanglement and quantum tomography** to advance the top quark physics field. Direct link: <https://indico.cern.ch/e/tpf23>

The workshop series aims at discussing progress made so far in understanding the top quark sector. With the end of LHC Run 2, we have collected tens of millions of top quark events and we have first exciting result from Run 3. This opens a new precision frontier with top quarks, which is the focus of the workshop, providing a forum for detailed discussions on how to address new challenges with top quark related measurements of the "classics" on cross-sections, mass, properties, but also on novel quantum probes, AI/ML applications and of course developments by the theory community.

We currently envision a full 2-day event on Monday and Tuesday preceded by a Reception and time for discussion on Sunday October 1st and a more formal social gathering on Monday, Oct 2nd. There is the potential for a more hands-on morning only session on Wednesday, Oct 4th (TBA).

Accommodation:

First, neither Purdue University nor the TPF23 organizers work with travellerpoint(dot)org, please disregard their emails and do not click on any links contained in those emails - its a scam.

Multiple Hotel options in reasonable distance and with downtown urban flair exist in the local area. We have negotiated cost-effective rates at the [Hilton Garden Inn, West Lafayette](#) (walkable to venue) and at the [Drury Inn, Lafayette](#) (needs car/shuttle).

- Within walking distance (15-20min) is the **Hilton Garden Inn** at \$129, West Lafayette side, no breakfast. We negotiated rooms with the booking code: TOPQ or link provided further below, or by calling the Hotel directly 765-743-2100. The reservation cutoff date is midnight, Friday, September 10th - direct booking link is this one: [Direct booking with the Hilton Garden Inn](#).
- Within walking distance (15-20min) is the [Hampton Inn & Suites](#) at \$159, West Lafayette side, no breakfast. Booking code is TPQ to be used in the group code field or by calling directly: 765-269-8000 and mentioning "Top Quark 23" or "TPQ" code.
- Most cost-effective accommodation is the Drury Inn - the negotiated rate is \$109 and includes breakfast already. It is located on the Lafayette side and requires a 15-20min drive into Purdue University - a shuttle option may exist. Parking is available at the Purdue Union Garage on Grant

- Other options close to Purdue University include the following
 - Holiday Inn at \$159, on Lafayette side, no breakfast
 - Purdue Memorial Union Hotel at \$189, on-campus, no breakfast but 5min walk to workshop venue.

Informal Welcome event & Conference dinner + reception

- We will have an informal welcome on Sunday October, 1st 7pm (eastern time) at [Nine Irish Restaurant](#) in West Lafayette, Venue: West Lafayette Location at 119 Howard Ave West Lafayette, IN 47906.
- We are organizing a dinner event on Monday evening, likely to start around 7pm with venue to be disclosed at the workshop.

Organizing Committee:

Kai-Feng Chen (National Taiwan University)

Timothy Hobbs (ANL)

Andreas Jung (Purdue U., Chair)

Giulia Negro (Purdue U.)

Marcel Vos (IFIC UV/CSIC Valencia)

AJ Wildridge (Purdue U.)