



Karlsruhe Institute of Technology

# ETP Monday Meeting

10.06.2024

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Institute of Experimental Particle Physics (ETP)

A dark-themed banner for the ETP (Institute of Experimental Particle Physics). On the left, there is a snippet of Python code. In the center, the text 'Institut für Experimentelle Teilchenphysik (ETP)' is written in a large, white, sans-serif font. On the right, the ETP logo is displayed, consisting of the letters 'ETP' in a bold, white font with a stylized circular graphic behind the 'P'. Below the logo, the full name 'Institut für Experimentelle Teilchenphysik' is written in a smaller white font. The background features a network of white lines and dots, a teal world map at the bottom right, and a teal circular graphic at the bottom center.

```
def main(args, config):
    logger.info(args)
    import numpy as np
    np.random.seed(int(config["seed"]))
    import ROOT
    ROOT.PyConfig.IgnoreCommandLineOptions()
    import root_numpy
    import matplotlib as mpl
    mpl.use('Agg')
    import matplotlib.pyplot as plt

    import tensorflow as tf
    logger.debug(tf.__file__)
    tf.set_random_seed(int(config["seed"]))
    from keras import set_session
    tfconfig = tf.ConfigProto()
    tfconfig.gpu_options.allow_growth = True
    set_session(tf.Session(config=tfconfig))

    from sklearn import preprocessing, model_selection
    import keras.models
    from keras.callbacks import ReduceLROnPlateau,
        EarlyStopping, ModelCheckpoint

    # Extract list of variables
```

Institut für  
Experimentelle  
Teilchenphysik (ETP)

**ETP**  
Institut für Experimentelle Teilchenphysik

# New Team Members

- Marcel Gaisdörfer (PhD student on CMS - BSM search)
- Baudry Bartels (master's student on Si R&D - HitPix)
- Aaron Wiedl (master's student on FCC - Higgs CP tests)
- Lorenzo Asfour (bachelor student on detector design)
- Jonas Floßmann (bachelor student on CMS - muon studies)
- Philipp Gostner (bachelor student on FPGA based signal processor)
- Lars Huber (bachelor student on common mode noise)
- Felix Schuckert (bachelor student on HitPix thermal monitor)
- ...

# “Laufzettel” - Checklist

- Please make sure to fill our checklist when joining & leaving the institute!

**Checklist ETP**

Name:..... Given name:.....

Date of birth: .....

City and zip code                      Street:                      Phone number

.....

E-Mail address KIT: .....

E-Mail address private: .....

Working group: ..... Prof. ....

Workplace (Bld.): ..... Room-No. .... KIT phone.....

Emergency contact:

Name:..... Given name:.....

Phone number : .....

**Please report any changes immediately to the ETP Institute Secretariat,  
Ms. Bräunling (CS) or Ms. Fellner (CN)**

PhD, Master-, Bachelor- und Teacher candidates only:

Degree you are aiming for (please check one box):

PhD                       Master                       Bachelor                       Teacher

Thesis topic: .....

Thesis supervisor: .....

Contact	Registration (signature)	De-registration (signature)
<b>Prof. U. Husemann</b> CN 401, R. 407 or CS 8-19		
<b>Prof. M. Klute</b> CN 401, R. 329 or CS 9-4		
<b>Prof. T. Ferber</b> CS 9-7		
<b>Prof. G. Quast</b> CS 9-5		

# Teaching Assignments for WS24/25

- We will discuss assignments July 1st. Please let us know if you have preferences
- **Options:**
  - Experimental Physics I (Klaus/Ulrich)
  - Python Course (Torben)
  - Modern Physics III (Markus)
  - TP1 (PP1): WS24/25 Introduction to PP (Pablo/Markus)
  - ML Lab Course (Jan)
  - Lab courses (P1/P3)

# Colloquia

- See emails by Hagen Haberland
  
- Special colloquium tomorrow (Tuesday 11/6) at 2pm by Michael Spannowsky

6/14/2024	5	Garst	Igor Gornyi
6/21/2024	6	Ferber	Heiko Lacker
6/28/2024	7	Hose	Gholamali Hoshyaripour

Coffee at 2:30pm

- Physics Colloquium

- Lehmann Hörsaal
- Friday 15:45 Uhr
- Program



## ■ Particle Physics Colloquium

- Kleiner Hörsaal B
- Thursday 15:45 Uhr
- Program

### Cosmic Particles in the Galactic Magnetic Field

Thursday, June 20, 2024

Kleiner Hörsaal A (CS) 15:45 - 17:00

Dr. Michael Unger  
(KIT)

Galaxies are known to be permeated by large-scale magnetic fields, but the origin of these fields remains a mystery. In this talk, I will present new results on the global structure of the magnetic field of our Galaxy, derived from extragalactic Faraday rotation measures and sky maps of polarized synchrotron emission obtained by WMAP and Planck.

As an application, I will explore the deflections of ultra high-energy cosmic rays within the Galactic magnetic field and discuss how they shape our interpretation of the cosmic-ray dipole. Additionally, I will demonstrate how this new magnetic field model can be used to pinpoint the extragalactic arrival direction of the extremely energetic "Amaterasu particle," recently discovered by the Telescope Array Collaboration, and discuss the implications for our understanding of the origin of ultrahigh-energy cosmic rays.



# Campus Day - last Saturday

- Many thanks to all who contributed

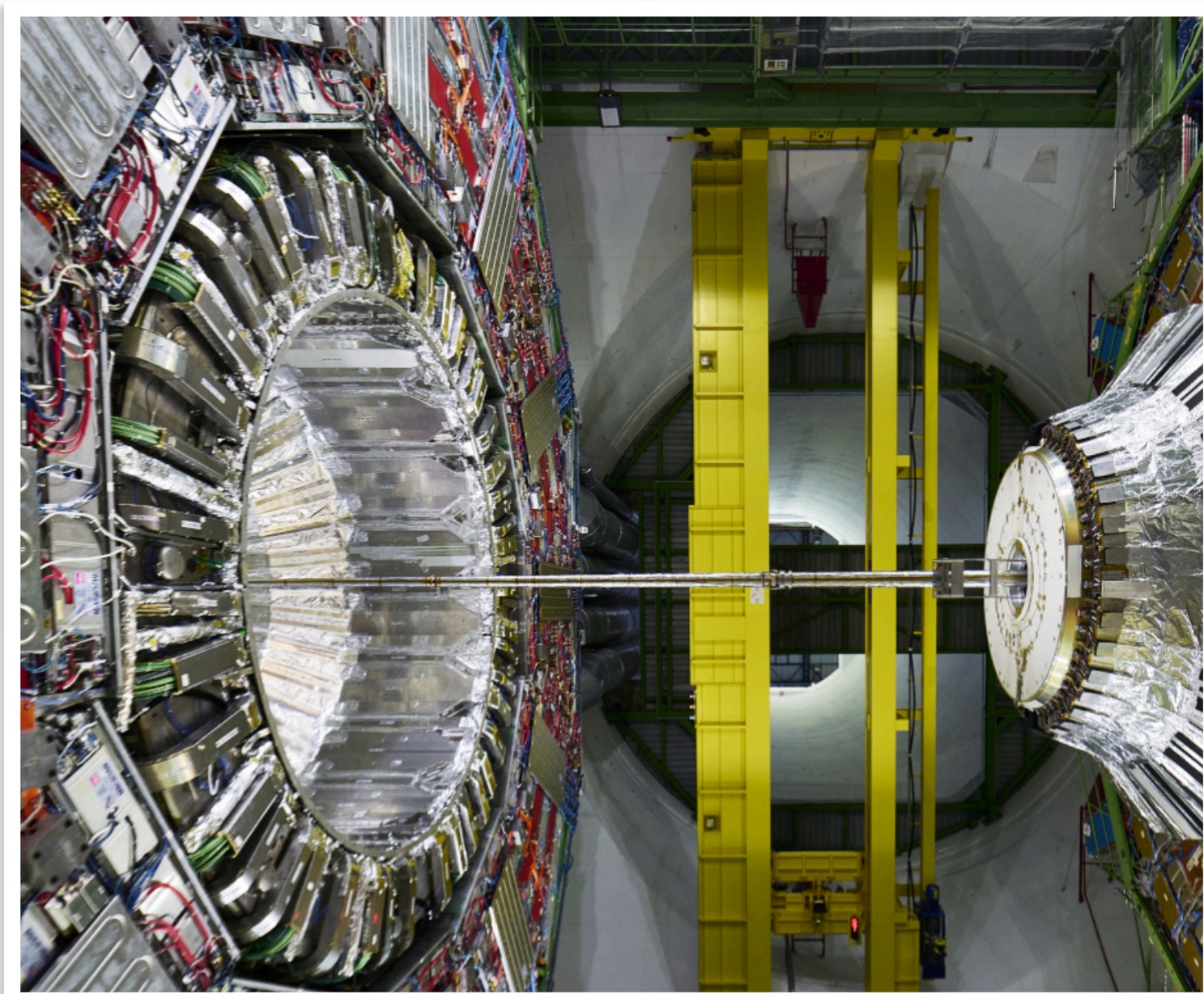


- Advertisement was questionable!



# Project days at Thomas-Mann-Gymnasium

- July 15th, 17th & 18th, 9am-1pm
- Project 1: Particle Physics (14 students)
- Project 2: Thermal Camera (15 students)





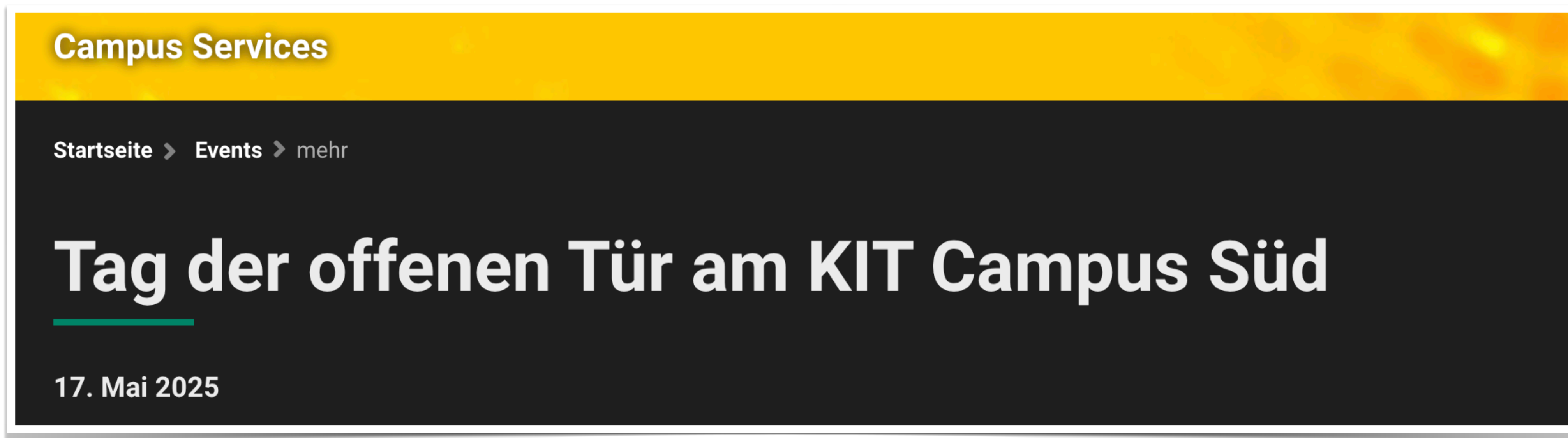


## ■ Events planned at KIT

- September 19 - Triangle: Open-Air cinema and podiums discussion
- September 20 - InformatiKOM: podiums discussion with politicians
- September 21 - Triangle: Family & Friends afternoon + Late-Night-Show in the evening

# Open Day 2025

- May 17th, 2025 celebrating KIT's 200 birthday
- First digital info event July 3rd, 10am
- Registration by June 28 here <https://www.cse.kit.edu/Kick-off.php>



Campus Services

Startseite > Events > mehr

## Tag der offenen Tür am KIT Campus Süd

17. Mai 2025

## KIT Meisterschaft - 13.07.24

<https://www.kit-sc.de/leichtathletik/kite-meisterschaft/>



### Ausschreibung 10. KIT Meisterschaft 2024

**Start:**

Der Start findet am 13. Juli 2024 um 9:30 Uhr statt und befindet sich auf dem Engler-Bunte-Ring ca. 50 m südlich des Instituts für Sport und Sportwissenschaft des KIT (Campus Süd, Gebäude 40.40).

Adresse: Engler-Bunte-Ring 13, 76131 Karlsruhe

**Ziel:**

Das Ziel befindet sich im Leichtathletikstadion des KIT Campus Süd.

Adresse: Engler-Bunte-Ring 13, 76131 Karlsruhe

**Anmeldung:**

[Hier geht es zur Anmeldung](#) oder über unseren Partner [RaceResult](#).

Die Meldegebühr beträgt 7€ für Studierende, 7€ für Mitarbeiter:innen und 10€ für Externe. Die Meldegebühr beinhaltet die Verbandsabgabe für Volksläufe in der Höhe von 50 Cent pro Teilnehmer.

**Meldeschluss und Nachmeldungen:**

Meldeschluss ist Mittwoch, der 10. Juli 2024 oder wenn das Teilnehmerlimit von 800 Läufern erreicht ist.

Sofern das Teilnehmerlimit nicht erreicht ist, sind bei der Startnummernausgabe am 12. Juli 2024, sowie am Starttag bis 30 Minuten vor dem Start

Nachmeldungen mit einer zusätzlichen Nachmeldegebühr von 3 € möglich

**Startnummernausgabe:**

Die Startnummernausgabe findet

- am Freitag, 12. Juli 2024 von 13:00 bis 14:00 Uhr am Institut für Sport und Sportwissenschaft (KIT Campus Süd, Gebäude 40.40) statt.
- Zusätzlich können Startnummern auch am Veranstaltungstag von 8:00 bis 9:00 Uhr am Institut für Sport und Sportwissenschaft abgeholt werden.



## News from ETP



© KIT / Daryoush Djavadi

### Looking back, looking ahead: DPG Spring Meeting in Karlsruhe

*March 04 - 08, 2024*

More than 1000 particle physicists met at KIT to discuss current topics in their field. The DPG working group on equal opportunities and the young DPG also participated in the conference program.

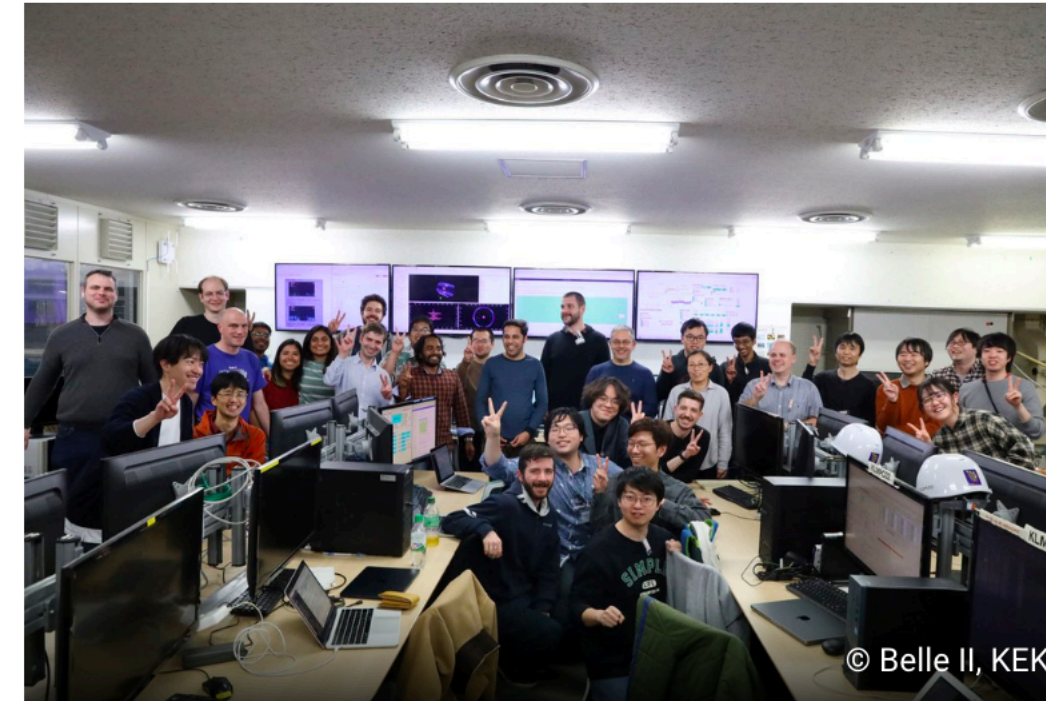


© DELight

### Decoding the Darkness: Scientists gather at KIT to discuss the DELight experiment

*February 21, 2024*

A scientific meeting was held at the ETP, attended by theoretical and experimental physicists from KIT and the universities of Heidelberg and Freiburg.



© Belle II, KEK

### The SuperKEKB collider has resumed work

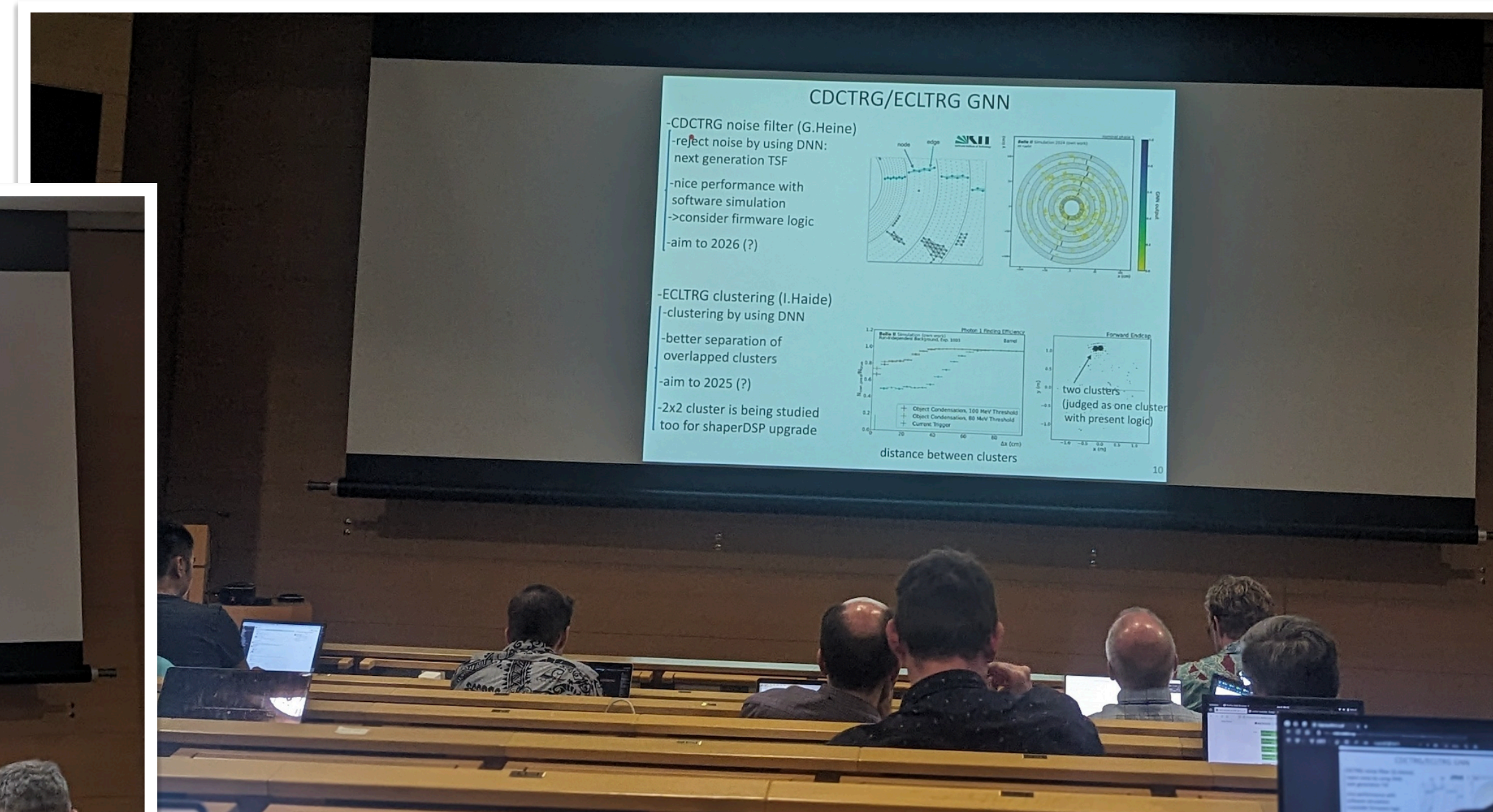
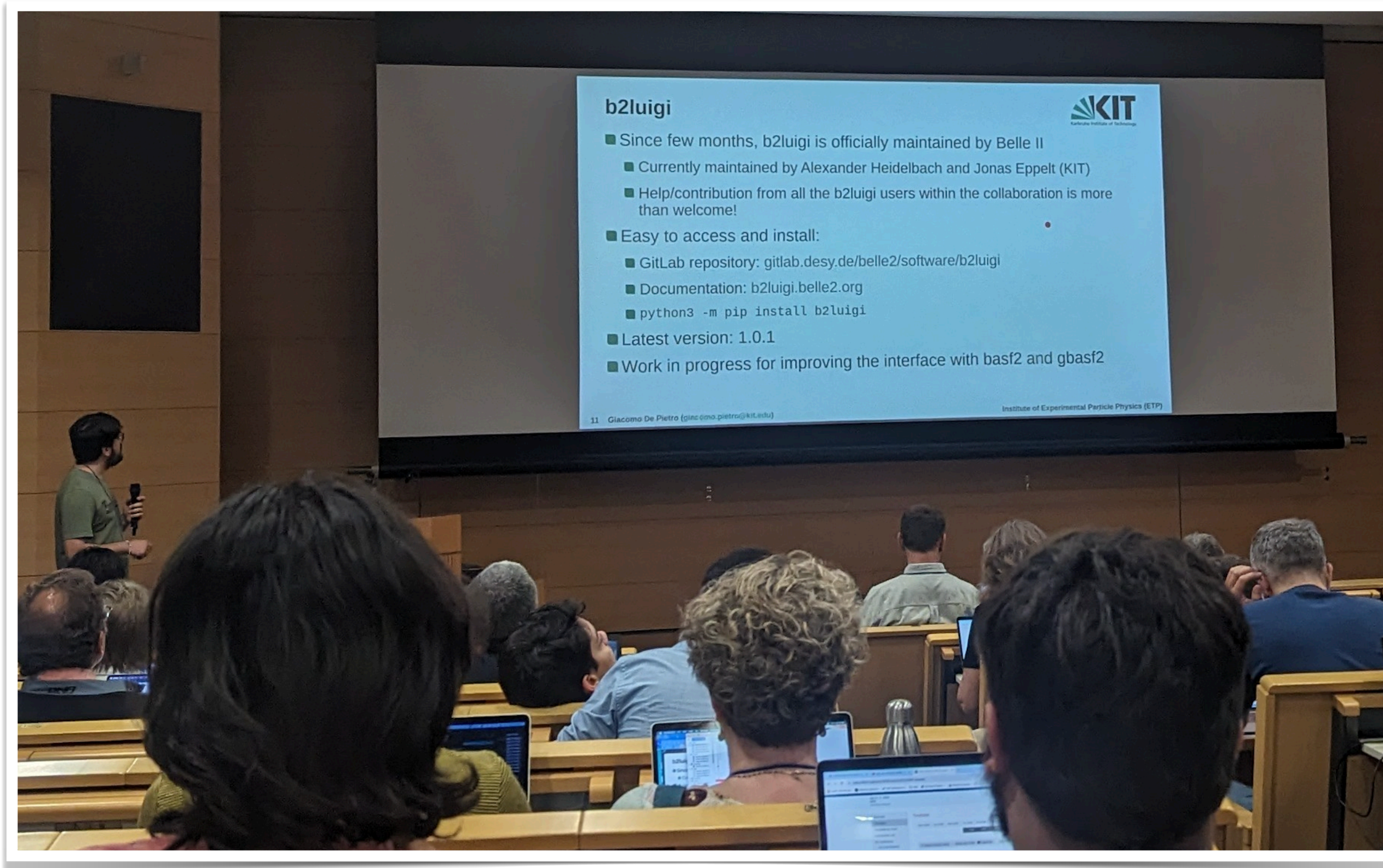
*February 20, 2024*

Belle II has set itself the goal of discovering new physical phenomena that could be the key to the mystery of the origin of the universe.

- “Not sufficient to do great work, you also have to talk about it” (Jerry Friedman)
- Please add contributions!
  - Scientific results, outreach, ETP events, like campus day, girls day, badische meile, hikes, etc.

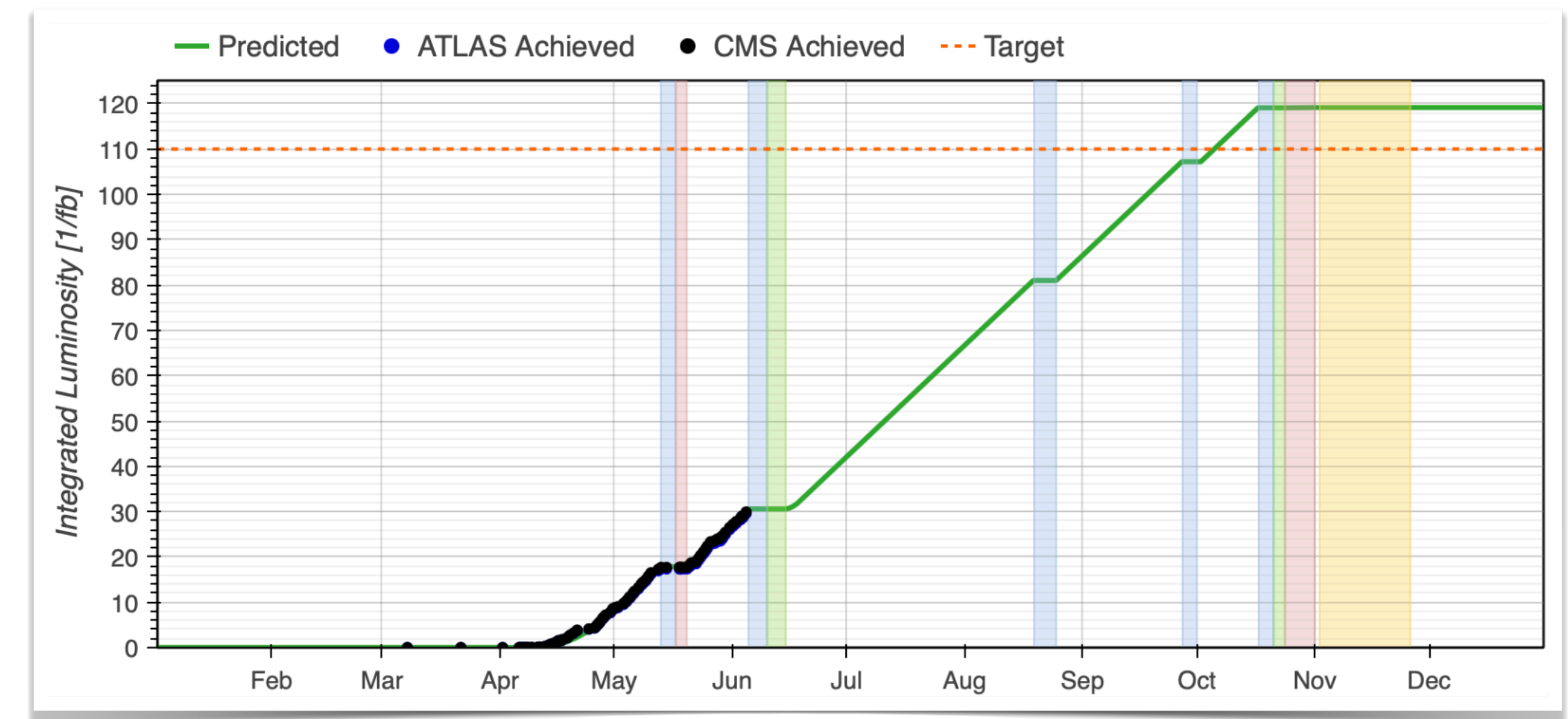
# Belle II Collaboration Week

- Many ETP contributions featured last week!



# News from LHC / CMS

- After a **cat entering P5** without badging on Saturday, also a bird flew into the control room on Sunday and a mouse was spotted last night.
- LHC finishing machine developing and entering intensity ramp
- So far, 2024 according to plan w/o major problems



# Hardware news

- Gluing jigs produced by workshop (1021) and 3D printer (1754)
- Ready to be shipped world-wide



# ETP Events in 2024



- Clean room party - 17.06.24
- Summer Party - 04.07.24
  - Group foto!
- KIT Meisterschaft - 13.07.24
- Summer Hike - week of July 29, 2024
- Schloss Lichtspiele - 09.08.24
- Christmas Party - 06.12.24




# Today's Meeting

## Weekly ETP Meeting

Monday 10 Jun 2024, 17:00 → 18:15 Europe/Berlin

  zoom

- 17:00** → 17:20 **News**  
Speaker: Markus Klute  
 ETP\_Weekly\_06102...
- 17:20** → 17:30 **The Hike**  
Speaker: Jonas Eppelt
- 17:30** → 17:50 **ArXiv Review**  
Speaker: Artur Monsch (KIT (ETP))