## Introduction to the Student Project

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## **Outline** of the Project

- For the student project you will work in a team
  - → Each discussion group will form a team
- Your task as a team will be:
  - → Select a published experimental paper on a given physics subject
  - → As a team, study and understand all aspects of the paper (trigger, selection, backgrounds, statistical analysis, systematic uncertainties, theoretical interpretation, ...)
  - → Together, prepare a 15 minute presentation on the paper (+ 5 minutes for questions)
  - → The presentation will be given by one member of the team



### **12-25 JUNE 2024**

Nakhon Pathom, Thailand

#### **Further Guidelines**

- Pick a suitable paper for a 15 min. presentation
  - → Typically one looks for a paper of at least ~10 pages
  - → Please let me know, once you have decided
  - → We can also provide printed copies of the paper
- Work on the project as a team
  - → You can use part of the discussion session to get organised
  - → Most of the work should happen in your free time
  - → Discuss and select the paper together, plan and share the work, review progress regularly, combine the contributions, select a speaker, organise a rehearsal of the talk...
  - → It is a student project, you may ask the discussion leaders for guidance if needed, but the task is on you 3

#### **Timeline**

- Assign topics to groups now
- Groups select paper by Tuesday 15:30 latest
- Special session for the presentations on Sunday,
   June 23
  - → Order of talks will be random
  - → There will be a vote to determine the winning presentation (1 vote per group)





## 2-25 JUNE 2024

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## Physics Topics

- 1) Searches at the LHC
- 2) Higgs measurements
- 3) QCD or Electroweak precision measurements
- 4) Flavour physics measurements
- 5) Heavy Ion measurements
- 6) Neutrino physics
- 7) Hadron Spectroscopy

We will pick 6 out of the 7 possible topics at random 5



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## **Assigning Subjects to Groups**

**Discussion Group A** 

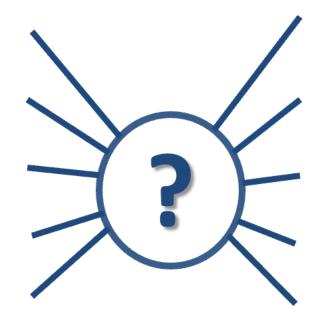
Discussion Group B

Discussion Group C

Discussion Group D

Discussion Group E

Discussion Group F



Searches at the LHC

Higgs measurements

QCD or Electroweak precision

measurements

Flavour physics measurements

Heavy Ion measurements

Neutrino physics

Hadron Spectroscopy





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## Questions?





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Have fun with the projects!



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## Subjects assigned to Groups

Discussion Group A: Hadron Spectroscopy

Discussion Group B: Higgs measurements

Discussion Group C: Neutrino physics

Discussion Group D: Flavour physics measurements

Discussion Group E: Searches at the LHC

Discussion Group F: Heavy Ion measurement