

International Masterclasses

The Concept:

- High school students (15 – 19) are invited to a research lab as „scientists for one day“
- introductory talks (standard model, detectors, accelerators)
- Hands-on: data from
 - LHC ([ATLAS](#), [CMS](#), [ALICE](#), [LHCb](#))
 - Neutrino experiment ([MINERvA](#))
 - [Belle II](#)
 - [Particle Therapy](#) (treatment plan)
- International video conference (3-5 groups + CERN / Fermilab / KEK / GSI)
 - Presentation of results
 - Combination and discussion
 - Q&A
 - quiz



09.03. - 14.03.

| | Mon, March 09 | Tue, March 10 | Wed, March 11 | Thu, March 12 | Fri, March 13 | Sat, March 14 |
|------------|------------------|---------------------|---------------|---------------|------------------|-------------------|
| topic | VC 1: ATLAS Z | VC 1: ATLAS W | VC 1: ATLAS W | VC 1: ATLAS Z | VC 1: ATLAS Z | VC 1: ATLAS Z |
| moderators | Daniel, Muhammad | Katharine, Muhammad | Kate, David | Kate, Suyog | Noemi, Roland | Suyog, Ricardo |
| | Barcelona | Colmar | London QMU | Pisa | Pisa | Porto |
| | Dublin UC | Valencia | Colmar | Orsay LAL | Braga | Lodz |
| | Genova | Perugia | Lund | Milano | Rome Tor Vergata | Crete |
| | Poznan | Rehovot Weizmann | Bein | Udine | Yale | Lisboa IST |
| | | | Copenhagen | | Granada | Nowy Sacz IFJ PAN |



Central elements: Data analysis + video conference



Worldwide program

- Organized by [IPPOG](#)
(*International Particle Physics Outreach Group*)
- [60 countries](#) involved in 2020
- > 220 research labs



Participate!

At your institute

- Does your institute participate? Search www.physicsmasterclasses.org/index.php?cat=country
- Organize an event / help as a tutor at your research lab
 - How to get started: www.physicsmasterclasses.org/index.php?cat=local_organisation&page=orga_intro

At CERN

- Moderate video conferences with high school students
 - Training provided
 - Moderate in pairs, newcomers are paired with „veterans“
 - 3-4 „shifts“ per moderator

Next International Masterclasses: Feb/March 2021

Interested? Contact: uta.bilow@tu-dresden.de

More info on www.physicsmasterclasses.org