

# Masterclasses with the Pierre Auger Observatory

## Video conference guide

Video recording of one example video conference at this [link](#)

### 1. Welcome by the videoconference moderators, 5' [\[slides: moderator 1\]](#)

- personal introduction by the moderators
- slide with the video conference agenda
- slide with the map of participating cities and initial round of greetings to the institutes

### 2. Discussion of the results, 25' [\[screen sharing: moderator 1\]](#)

- following the students results at the [webpage "Activities" tab](#), suggestions for a guided discussion are:

- Discuss the result from an individual group: [\[moderator 1\]](#)
  - sky map coordinates (how to read them), any pattern?
  - comparison with another individual result, is it the same pattern?
  - need for statistics!
- Discuss the combined result from one institution: [\[moderator 2\]](#)
  - blind region with no events, why?
  - do the many points accumulate in a particular region? how to move forward?
  - need for exposure correction and smoothing procedure (brief explanation)!
- Discuss the smoothed flux map: [\[moderator 1\]](#)
  - discussion of the combined map with the events from different institutions together
  - does the "hot" region correspond to the Milky Way?
  - any pattern? how to interpret it?
- Show the Auger result (public and the full data, at the [webpage "Measurement" tab](#)) and conclude with a brief explanation about the origin of the dipole pattern [\[moderator 2\]](#)

### 3. Questions from the students, **10'** [moderators 1 and 2 in alternate]

- round through the institutes in which the students have the opportunity to ask questions to the moderators about the experimental activity, the observatory, physics and general science, the life and work of a scientist, etc.
- if there is little input from the students (highly uncommon), the moderators can also ask questions; here are some suggestions:
  - *"Have you heard about cosmic rays before?"*
  - *"What were the most interesting things you have learned today?"*
  - *"What did you think about the experimental activity?"*
  - *"Was it more difficult than the typical exercises you do at school?"*
  - *"How was it like working as scientists in astroparticle experiments do?"*

### 4. Virtual visit to the Pierre Auger Observatory, **10'** [moderator 3, at Malargue]

- show the observatory control room, the surface-detector station near the entrance, and the visitors centre
- if it was not possible to arrange with someone at Malargue to show the observatory, one may alternatively allow more time for the two previous parts of the video conference, show 3D displays of the [Top100 catalog](#) events, or show a remote control room (if possible)

### 5. Final quiz, **10'** [screen sharing: moderator 1]

- run the Auger Masterclasses Quiz from the quizizz platform (credentials and instructions in a separate document)

Farewell