

# Masterclasses with the Pierre Auger Observatory

## Videoconference guide

1. Welcome by the videoconference moderators, **5'**
  - personal introduction by the moderators
  - show the observatory (or remote) control room
  - slide with the videoconference agenda
  - slide with the map of participating cities
  
2. Icebreaker exchange with students, **10'**
  - initial round of questions to the institutes, examples:
    - *"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?"*
  
3. Discussion of the results, **15'**
  - using the webpage *"Activities"* tab, suggested structure and topics:
    - Discuss the result from an individual group: sky map coordinates, any pattern?, comparison with another individual result - same pattern?, need for statistics;
    - Discuss the combined result from one institution: blind region with no events - why?, do the many points accumulate in a particular region/pattern?, how to move forward?;
    - Brief explanation of the exposure correction and the smoothing procedure;
    - Discuss the smoothed flux map: comparison of the result from different institutes, discussion of the the combined map, does the "hot" region correspond to the milky way?, how to interpret the pattern;
    - Show the Auger result, with public and the full data, and conclude with a brief explanation of the origin of the dipole.
  
4. Questions from the students, **15'**
  - round through the institutes in which the students have the opportunity to ask questions to the moderators about physics, the Pierre Auger Observatory, the experimental activity, the life and work of a scientist, etc.
  
5. Final quiz, **10'**

Farewell