



International Particle  
Physics Outreach Group

# Feedback from Teachers Masterclasses Geneva 2017

---

B. Bruant Gulejova

Masterclasses Steering Group Meeting  
13<sup>th</sup> IPPOG Meeting  
Lisbon 20-22 April 2017

# Importance of Feedback from Teachers

- IMC has been running successfully for many years now and growing geographically and in physics scope....
- At this point we might think of:
  - Increasing not only quantity (new countries, new physics), but also **quality** - **adaptability** to the needs teachers, students...
    - **impact**
    - **compatibility with their curricula**
- Needs and wishes from teachers????
- Do we systematically ask teachers & students for feedback?
- Do we know if they understood? Or felt lost? Or missed something?
- Can they use the information from MC day in the classroom and how?
- What can we do to make their experience even better, efficient and worthwhile?

# Oh those Curricula....

- Every country has different education system
  - With **national curriculum** applied at all high schools in the country!  
Australia, Slovakia, ....
    - PP included in curriculum (Australia)
    - PP not (yet) included in curriculum ☺
  - **No common curriculum** (UK, Switzerland, ...)
    - somewhere PP, somewhere not (yet)
  - **International schools with IBO programme** (including PP)
    - this is the easiest way to include MC into curriculum
    - contacts with headquarters in Hague since 2015 (Ken, Barbora)
    - recently new good contacts in Lausanne and Geneva (Barbora)
- Do we know about curricula in all IPPOG member countries?

# Masterclasses @ Uni Geneva, 02/03/2017

## Feedback from Teachers

- **Missing preparation for MC**
  - materials, including the lecture of scientist to ensure that they don't explain the same to students before attending MCs
  - steps to follow to prepare the analysis exercise (they can download the dataset but don't know what to do with it...)
- **Not understanding the analysis exercise**
  - they don't feel comfortable if they can't help their students to do the analysis
  - even if there are scientists to help, students always ask their teachers...
- **Discussion and conclusions of the results of analysis not very clear**
  - could be done better, more clearly (using microphone and better visual support as well)
  - it would have been good to have done the demonstration of how to work with HYPATIA and do the analysis, select events etc...

# Masterclasses @ Uni Geneva, 02/03/2017

## Feedback from Teachers

- **Final videoconference didn't add too much value**
  - maybe would if they shared results
  - connection / sound was not good
  - only thing which was understandable and brought value was quiz
- **No idea how to include the learned in the classroom / follow-up**
  - some link with information on how to continue the same exercise in the classroom could be available with program and data to be downloaded + steps to follow...(they tried but it seems that it doesn't work)
- **Suggestions**
  - questionnaires for students and teachers to see what works and what not and if they have some ideas for improvement

# Masterclasses @ Uni Geneva, 02/03/2017

## Feedback from Observer (Barbora)

- **Morning lecture very good**
- **Afternoon analysis unclear**
  - jumping directly to HYPATIA without knowing what to do, how and why...
  - teachers cant help – they don't know more then students here
  - discussion of results unclear
  - videoconference impressive but not informative (only quiz is good)
- **Preparation and follow up materials – very important!**
- **Get systematic feedback from teachers and students**
- **Inspire from good practice of US MC**
  - preparation
  - follow-up
  - questionnaires

# Feedback from Australian MC

Directly linked to the national curriculum which includes PP

- **Preparation to MC**

- materials for teachers and students to prepare to analyse with HYPATIA
- HYPATIA Q&A where students communicate with scientists

- **Follow-up of MC**

- as Australian curriculum includes PP and MC does not cover all the aspects of Australian Curriculum in PP, teachers will either continue with PP or would have done that work prior to starting with MC

- **Feedback from teachers and students**

- not yet, only google analytics...but aiming for that...