## ITW2019 Focus Groups

1. Particle Physics & Errors and Uncertainty  
2. Particle Accelerators  
3. Particle Detectors  
4. Data Analysis in Particle Physics  
5. Computing in Particle Physics  
6. Medical Applications of Particle Physics  
7. Higgs Physics  
8. Antimatter Research  
9. Future Accelerators

### WEEK1

| FG Session 1 | Wednesday, 7 August | 15:30-17:00 |
| FG Session 2 | Thursday, 8 August | 16:30-17:30 |

### WEEK2

| FG Session 3 | Monday, 12 August | 16:00-17:30 |
| FG Session 4 | Thursday, 15 August | 14:00-17:00 |

### Last day of ITW2019

| FG Final Reports | Friday, 16 August | 9:00-12:30 |

---

### Guiding research questions about the FG topics

A) To what extent is the topic featured in your curriculum?  
B) Which students’ conceptions about the topic do you know?  
C) What is your experience with teaching the topic in your classroom?  
D) Which words and phrases can cause difficulties and misunderstandings?  
E) Which aspects of the topic do you consider challenging to teach to students?  
F) Which aspects of the topic do you think can be appropriately introduced in the classroom?

---

### Guidelines for the final report

1. Curriculum & classroom connections (Presentation)  
   *Highlight potential connections to the various curriculums and your individual teaching practises*

2. Key ideas (Presentation & Paper)  
   *Showcase the most important aspects of the topic that you consider to be key for a meaningful instruction*

3. Potential students’ conceptions & challenges (Presentation)  
   *Illustrate elements of the topic that might obstruct a successful introduction in the classroom*

4. Helpful material and resources (Presentation)  
   *Reference any material that you find useful for your students and/or your colleagues*

5. Best practice example (Presentation & Paper)  
   *Summarise your findings through a brief outline of an instructional strategy*