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Innovating physics education: From research to practice

Contribution ID: **87**   Type: **Presentations in Wroclaw**

2Q-System: A Tool for Lesson Planning and Continuous Monitoring of In-Lesson Learning Progress

Monday 13 December 2021 11:20 (20 minutes)

We developed a system based on a series of two multiple-choice questions (2Q-system) used for diagnostics of students knowledge at the beginning of physics exercise classes and to continuously monitor the learning progress during the course. The system was successfully implemented at ETH Zurich for selected introductory and advanced physics courses. With the 2Q-system we were able to measure learning gains of more than 25 % in almost all lessons.

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Session Classification: Parallel 1 - Wroclaw

Track Classification: 9. Initial teacher education, teacher professional development and Technological Pedagogical Content Knowledge