



Contribution ID: 101

Type: **Oral presentation**

Quantifying students' collective creativity in designing soft matter experiments

Tuesday 1 July 2025 15:50 (20 minutes)

Creativity is an important higher order skill but it is hard to measure directly. Various methods to measure students' collective creativity are compared and discussed. These methods were applied to students' design proposals for an own choice experiment in soft matter. After comparison, the most promising quantification of collective creativity was a random probability calculation of the subject distribution. By being able to distinguish smaller changes in collective creativity between years, this new measure will be very helpful in improving future implementations of lab courses to stimulate creativity in students.

Education level

Age over 18 (excluding teacher education)

Physics topic

Other

Research focus

Lab course design

Research method

Analytic Physics Education Research (Quantitative research)

Organizing preference criteria

Research focus

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Session Classification: Parallel oral presentations

Track Classification: Laboratory-based physics (LAB)