



# Working group

## COMPUTER-AIDED EXPERIMENTS AND EXPLORATIONS IN THE MATH CLASSROOM

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Computer-aided experimentation is now an organic part of scientific research and education. In general, such methods do not have the power of proof in the rigorous mathematical theories, but they are essential in preliminary examples or illustrating theories. In addition, experimental study proved to be quite effective in studying mathematical problems. The new features have been leading to the fast development of constructive methods, and several classical fields. Even more, new fields born and have become very important.

Experimental methods and tools are also highly involved in the education, where either manual or computer-aided experiments can help a deeper and more comprehensive knowledge. In the experimental sciences, experimental arguments are preferred to or in many cases applied instead of rigorous arguments.

In the session " Computer-aided Experiments and explorations in the Math classroom " we will focus on the computer-aided experimental and explorative methods in:

- problem solving
- understanding mathematical theories
- applications in sciences and engineering

Hence either didactic or research submissions are welcome concerning

- visualization of mathematical objects and methods
- constructions
- experiments in mathematics classroom and individual study
- applications in Mathematics and special fields of sciences, engineering, informatics etc.