CERME 14: Thematic Working Group 05
Probability and Statistics Education

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Scope and focus of the Working Group

Statistical and probabilistic thinking and reasoning are critical skills for citizens in order to contribute to the knowledge society, to interpret information in the media or workplace and to interpret scholarly papers. The confluence of historical, environmental, economic, social, political, and health crises has spotlighted the importance of the pedagogies and tools we use to communicate meaning in statistics and probability. Moreover, it has led to an appreciation of and surge in interest in trustworthy statistics, evidenced by the increase in people accessing statistical information about their communities. Consequently, a significant challenge is to develop statistically literate citizens and promote the meaningful use of statistical tools. The professional development of teachers is crucial to this task. TWG 5 positions itself within research which is fundamentally essential when new developments and trends like data science education and interdisciplinary collaboration provide further stimulus for growth in the research landscape on probability and statistics education.

Call for papers and poster proposals
We are particularly interested in theoretical, empirical, or design-based research papers (8 pages max.) and poster proposals (2 pages max.) that address one or more of the following themes:
- The nature and development of probabilistic and statistical thinking and its relationships, for example, in modelling and informal statistical inference
- Students' or adults' dispositions, attitudes, and beliefs towards probability and statistics
- The role of context in statistics, and how changes in context influence how we approach the teaching and learning of probability and statistics and inform new priorities and agendas
- Emerging trends, developments and innovation in teaching probability and statistics
- The professional development of teachers to teach statistics and probability
- The role of digital tools in the learning and teaching of probability and statistics
- The elaboration of theoretical frameworks that may provide insightful models for interpreting evidence from research on probability and statistics education
- Data science education, practices of using big data and new forms of data, such as text, image, video, and sound
- Assessment in probability and statistics education

Papers and poster proposals *must use the CERME template*, and conform to the guidelines at https://www.cerme14.it/. CERME 14 uses an electronic submission system https://www.conftool.pro/cerme14/. The authors submit the initial version of their paper on the website (uploading it both as a .doc and a .pdf file, and providing the required information, in particular the TWG number).

Reviews and decisions
Each paper will be peer-reviewed by two people selected from TWG05 authors. *All co-authors* may be asked to review up to two papers. The group leaders will decide on the acceptance of posters.

Important dates
- **See https://www.cerme14.it/ for important dates**