ZSOLT LAVICZA, University of Cambridge, 184 Hills Road, Cambridge, CB2 8PQ, UK
Mathematicians' conceptions of technology use in university-level mathematics teaching

Digital technologies are becoming an integral part of everyday life and are increasingly used at all levels of education. Anecdotal evidence suggests an increase in the use of technology, particularly Computer Algebra Systems (CAS), for the teaching and learning mathematics at universities. However, little is known about the current extent of CAS use in university-level teaching, the various practices mathematicians apply when teaching with technology, and mathematicians' views on the role of CAS in teaching mathematics. In my talk, I will outline results of a two-phase international comparative survey study, carried out in Hungary, the United Kingdom and United States, that examined

(1) the extent of CAS use in;

(2) the factors influencing CAS integration into; and

(3) the effects of different teaching traditions on university-level CAS-assisted mathematics teaching.

Results indicated that that many mathematicians extensively use CAS in their teaching and research.

According to the developed statistical models, the teaching use of CAS was significantly influenced by mathematicians' CAS use in their own research and was largely affected by mathematicians' conceptions of the role of CAS in mathematical literacy. However, despite the substantial differences in teaching traditions in the participating countries the study did not reveal considerable differences in mathematicians' use and conceptions of CAS in their teaching between the participating countries.