

A comparative analysis of academic mathematicians' conceptions and professional use of technologies in university mathematics

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There are diverse beliefs and assumptions about how and how much mathematicians use technologies to teach mathematics at the university level. However, as opposed to the school level, where large-scale studies regularly assess the extent of technology use, little is known about the integration of technology in university-level mathematics teaching and learning. In this talk, drawing on two international studies, we aim to outline some current practices of mathematicians' use technologies, particularly Computer Algebra Systems (CAS), their views about the role of CAS in future mathematics teaching and students' mathematical literacy, and some factors that influence mathematicians to integrate technology into their own teaching practices. This research is based on interviews and questionnaires of more than a thousand mathematicians in Canada, Hungary, the United States, and the United Kingdom, a review of 1500 publications of technology-related literature.