Using the Real Power of Computer Algebra

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Keynote Lecture

ABSTRACT

Almost everyone is convinced that Computer Algebra (CA) is a good tool that should be used for solving complicated problems. The main idea that will be developed in this talk is the following: we also think that CA can be used to solve problems with different degrees of complexity and to explain mathematical concepts. CA can be used to teach mathematics and represents a nice opportunity to do more mathematics instead of less. Isn't it surprising to observe that too often, despite all this technology, we still continue to follow a classical way, avoiding to link (apparent) different subjects?

Instead of removing items from the curriculum, our point of view is to try to solve a problem using different approaches ─ don't forget that students rapidly forget what you have said some weeks ago ─ and also to reinforce paper and pencil techniques with the aid of an appropriate tool ─ illustrating the real possibilities of teaching mathematics using CA. DERIVE, NSPIRE CAS software and VOYAGE 200 symbolic calculator will be used.