# Computer Mathematics in Education — — Enlightenment or Incantation?

Computer Mathematics plays an important role in education – does this role tend towards enlightenment of students or towards incantation by students ? So this workshop adresses what “Intelligent” in the conference's title might mean: raising ”enlightenment” (a misleading translation from German “Aufklaerung”) or raising blind trust in technology and using tools for kinds of ”incantation”?

Looking at the state of the art in educational use of mathematics software we see: Computer Algebra Systems are used to widen application areas of mathematics by uncaging students from tricky calculations – and by the way tend to shift formal mathematics into mystical incantation. Dynamic Geometry Systems appeal to students' intuition, experts advocate ”geometrical proof” – and by the way bypass the challenge of demonstrating reliability by formal proof. And last not least a “new generation of educational mathematics software” based on technologies from Computer Theorem Proving is announced while respective software for general mathematics education still seems unavailable.

So this workshop considered recent developments in Computer Mathematics, discussed potential impact of respective tools and reconsider developers' responsibility for such impact. Interesting as discussion of “Enlightenment or Incantation” in education appeared, it started from concrete technologies; and from there questions in context with the title's question have been asked.

There will be a **panel discussion** on the topic on **Fri. 17.Aug. 14:00**. Room will be announced.



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