Tangible and dynamic mathematics

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Keynote Lecture

ABSTRACT

The dynamic mathematics environments offer representations of mathematical objects that can be manipulated and behave mathematically when varying. Variation, variables, co-variation are reified in this kind of environment, they become central and provide new ways of approaching mathematics focusing on variation. These environments can give rise to new kinds of learning situations in which varying the objects plays various roles. The talk will analyze these different roles and bring dragging into focus. It will be illustrated by means of examples in Cabri II Plus and Cabri 3D as well as in Cabri Elem for elementary school.