

4TU.AMI Conference "Mathematics Education: the next decade and beyond"

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Title: Why use Python in introductory Calculus?

Abstract: Since 2015, a course in Scientific Computing with Python has been obligatory in the first semester for bachelor students in mathematics and physics at Lund University. We argue that by introducing a non-math specific programming language at an early stage in their study programmes, we can help the students bridge the perceived gap between theory and practical computations. In particular, this allows us to more easily showcase the relevance of Calculus (and higher mathematics in general) in the sciences. Feedback from students and teachers indicate an increased motivation among students, a decreased drop-out rate, and an improvement of study results.