Abstract: Nowadays, much attention is paid to the development of students’ competences in the field of digital literacy and computational thinking. However, it is not always clear what computational thinking exactly is. Also, as mathematics educators, we may feel some resemblance between higher-order learning goals in mathematics teaching and computational thinking, but still are unsure about how to reconcile the two, and how to address computational thinking in the mathematics classroom. What is computational thinking and how can it be related to mathematics education goals and practices? To address these questions, I will first reflect on the notions of computational thinking and mathematical thinking. Next, the results of a Delphi study on computational thinking in mathematics teaching will be presented. Finally, I will address the preliminary results of the teaching experiments we carried out in applied and pure mathematics courses for 16-17-year-old students in the Netherlands.

Bio:
Paul Drijvers is scientific director and full professor in mathematics education at the Freudenthal Institute of Utrecht University's Science Faculty. As scientific director, he is responsible for the institute's research program. His own research interests include the role of ICT in mathematics education, mathematical thinking, and embodiment in mathematics education. For more information see https://www.uu.nl/staff/PHMDrijvers/Profiel

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