Mathematics Education: The PRIME Approach

Beryl van Gelderen en Tom Vroegrijk

Abstract

The Programme of Innovation for Mathematics Education (PRIME) at TU Delft redesigns mathematics courses for engineering students to enhance academic performance and motivation on a large scale. PRIME integrates in-person and digital learning in more than 35 courses, featuring interactive animations, videos, and digital homework with automated feedback. In this session, we will present the digital learning materials we have developed and share our story of building a teaching community.

All of our materials, including the interactive Linear Algebra textbook, are freely accessible as part of our commitment to open education. A curated and searchable collection of more than 200 educational materials that we use in our courses can be found in the [PRIME catalogue] <tudelft.nl/primecatalogue>. Our current collection includes interactive explanations of mathematical concepts, real-world application videos that bridge theory and engineering practice, and animations that offer visual representations of abstract mathematical concepts.

We are now focusing on collaborating with educators from other universities to expand the catalogue with high-quality materials and create a shared resource for digital mathematics education. In this session, we aim to exchange ideas and materials, and explore opportunities for joint development.

Speakers

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