

Investigating and addressing physics students' mathematical difficulties

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Throughout the history of physics education, physics students' mathematical preparation and skills have been a concern both for instructors and educational researchers. The impact of that preparation on students' success in physics courses has been studied, and many specific mathematical difficulties faced by physics students have been identified. A variety of instructional approaches have been suggested to address these difficulties. I will survey some of the key research findings, and discuss a number of pedagogical strategies that have been employed or are under development.

