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What is mathematics good for anyway?

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A course in intermediate mathematics, including linear algebra, is usually a corequisite for an intermediate level physics course and linear algebra is generally considered an important tool for physicists. However, students often struggle both with understanding linear algebra in the abstract (in maths class) and with applying linear algebra concepts to physics.

We present a description, based on Grounded Theory, of student and expert perspectives on linear algebra and its applications in quantum mechanics. This is a multidimensional picture involving not only students' and experts' aptitude with linear algebra and quantum mechanics, but also their strategies for applying one to the other and their subjective attitudes towards how useful and usable the topics in question are.

Apply to be considered for a student award (Yes / No)?

Yes

Level for award (Hons, MSc, PhD, N/A)?

PhD

Main supervisor (name and email)&br>and his / her institution

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**Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?**

Yes

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