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## Educational technology for physics: what's useful? And how do we generate it?

*Tuesday, 2 October 2018 10:00 (1 hour)*

My theoretical physics research is in ultracold gases, where the phenomena are predominantly quantum mechanical. My novel results have been discovered and analysed via computer algebra. This understanding of the power of computer algebra has transferred to my education practice - where it enables my team and I to design mathematically based questions that can be automatically marked. These questions better probe the depth of understanding than normal multiple choice, by enabling free form mathematics to be entered as the answer. But which questions? The choice and implementation is undertaken by summer student interns, and I will discuss how one harnesses their imagination and understanding of their peers' needs whilst ensuring that materials they generate are properly quality assured to be released to whole classes.

And finally, how about equality? If the questions are to be inclusive and relevant to all we need to ensure we have an inclusive team writing them. Hence, I will discuss the importance of the student recruitment process.

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

No

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

N/A

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