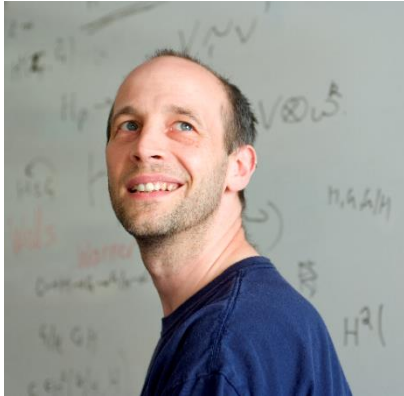# THE FUTURE OF MATHEMATICS?



**Professor Kevin Buzzard**

Computers have changed the way that humans do mathematics: they enable us to do experiments in an extremely efficient way. If a mathematician comes up with a new conjecture about numbers, they could test it in thousands or even millions of special cases without even leaving their office, before devoting any time trying to prove it in general. But there are infinitely many numbers, and a computer cannot check infinitely many things.

In the future, computers will change the way that humans do mathematics in a second way. They will help humans to look for proofs. Kevin Buzzard, Professor at Imperial College London, believes that advances in Artificial Intelligence (AI) and machine learning, combined with growing databases of mathematical theorems, make this the inevitable future of mathematics. Computers can beat us at chess already -- when will they start to beat us at proving mathematical theorems? Will the jobs of research mathematicians be under threat? Should this change the way we teach mathematics?

Professor Buzzard will give an introductory survey of the differences between the ways that humans and computers do mathematics, and how humans and computers are learning to work together. No technical background will be assumed and the talk will be suitable for a general audience.

## 18:00 – 19:00 Thursday, 30 May 2019

Clore Lecture Theatre, 180 Queen's Gate (Huxley Building)
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