

EXCELLENT NEWS: THE NEW FUNDING OF UK MATHS ANNOUNCED

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Mathematics has been most indispensable for science and engineering, and for the development of an abundance of technologies. Mathematics for these applications resulted from curiosity driven fundamental research, with actual applications (as well as enormous economic and societal impact) emerging immediately or many years later.

Greatest maths achievements can be compared, in terms of their impact on our knowledge, with a Moon landing, but, unlike space exploration or artistic achievements whose significance can be recognised and appreciated by millions, top achievements in mathematics can be comprehended by smaller numbers.

Fundamental mathematics and its applications have shaped the modern world. Mathematics transforms our daily life in many areas including optimisation, financial markets, banking system, cryptographic methods, traffic flow control, quantum computing, defence and security, cybersecurity, transmitting internet data, weather forecasting, computational modelling, machine learning, artificial intelligence, advanced algorithms, decision-making under uncertainty. And modern maths can help improve administrative, political and governing structures. It can accelerate our economy growth and save billions¹.

For centuries British mathematics has made extraordinary breakthroughs. It is vital to properly support mathematics in Britain and that, in the spirit of Alan Turing, to give proper weight to the most fundamental research, not just the immediate applications. To reach to new fundamental discoveries and theories one cannot proceed via incremental and technical improvements of existing results. One has to engage in a courageous and risky exploration needed for genuine breakthroughs.

The new funding of UK maths^{2 3} is an unprecedented increase of maths research funding. Funding maths will imply higher quality of maths awareness of scientists overall and new core opportunities for the UK to lead in the 4th industrial revolution.

The new funding of UK maths is a great news for everyone, for scientists, for mathematicians, and for our next generations.

Date: January 2020.

¹ <http://www.ox.ac.uk/research/research-impact/geometry-rescue-0>

² <https://www.maths.nottingham.ac.uk/plp/pmzibf/mathsproposal.pdf>

³ <https://www.gov.uk/government/news/boost-for-uk-science-with-unlimited-visa-offer-to-worlds-brightest-and-best>