

PUBLIC LECTURE

Faculty of Science and Medicine - University of Fribourg



Wednesday, November 14th 2018, at 17:00

University of Fribourg, PER 21, Room C120

Bd. de Pérolles 90, 1700 Fribourg

The lecture will be followed by a reception

Nick Trefethen

University of Oxford



Discrete or continuous?

A centuries-old interplay in mathematics, science, and technology

One of the great themes of scientific thought is the interplay between discrete and continuous understandings of the world. The air in this room, for example - is it a swarm of discrete molecules bouncing around, or a smooth continuum? To deny either of these points of view would be to exclude a part of the truth. This talk will be a tour of certain aspects of discrete and continuous thinking in physics, chemistry, biology, computer science, engineering, and the speaker's own field of mathematics, where the attempt to make discrete things feel continuous is at the heart of some of the work for which he is best known.

Nick Trefethen is a mathematics professor at the University of Oxford, originally from Massachusetts. He earned his bachelor's degree at Harvard University, his master's degree and his doctorate from Stanford University.

In 1997, after positions at the Courant Institute of Mathematical Sciences, the Massachusetts Institute of Technology and Cornell University, he joined the computer science and mathematics departments of the University of Oxford, where he has been leading the Numerical Analysis group ever since.

His research spans a wide range within numerical analysis and applied mathematics, in particular the numerical solution of differential equations, fluid mechanics, numerical linear algebra, the shuffling of cards, random matrices and lasers.

He is also well-known for the quality of his books, which are among the most widely sold of the field, and has nourished scientific discussion well beyond mathematics. In 2013, he suggested a new formula for the body mass index of a person.

The talk will be given in the context of the Dies academicus 2018, at which professor Trefethen will be granted the title of **Doctor honoris causa** of our University.

For more info visit: <http://math.unifr.ch/events.php>