John Pearson

Title: The Possibilities of Numerical Analysis

In a vast number of scientific applications, it is vital to be able to devise fast and effective numerical algorithms to accurately solve mathematical models. In this talk, I will aim to give a whistle-stop tour of a number of fields in which the study of numerical methods has enabled mathematicians to make significant research contributions. Some examples of such topics include the modelling of chemical and biological processes, the PageRank algorithm in Google, and the rapid numerical solution of partial differential equations. I will also provide an outlook as to the likely future research directions in this rich subject area.