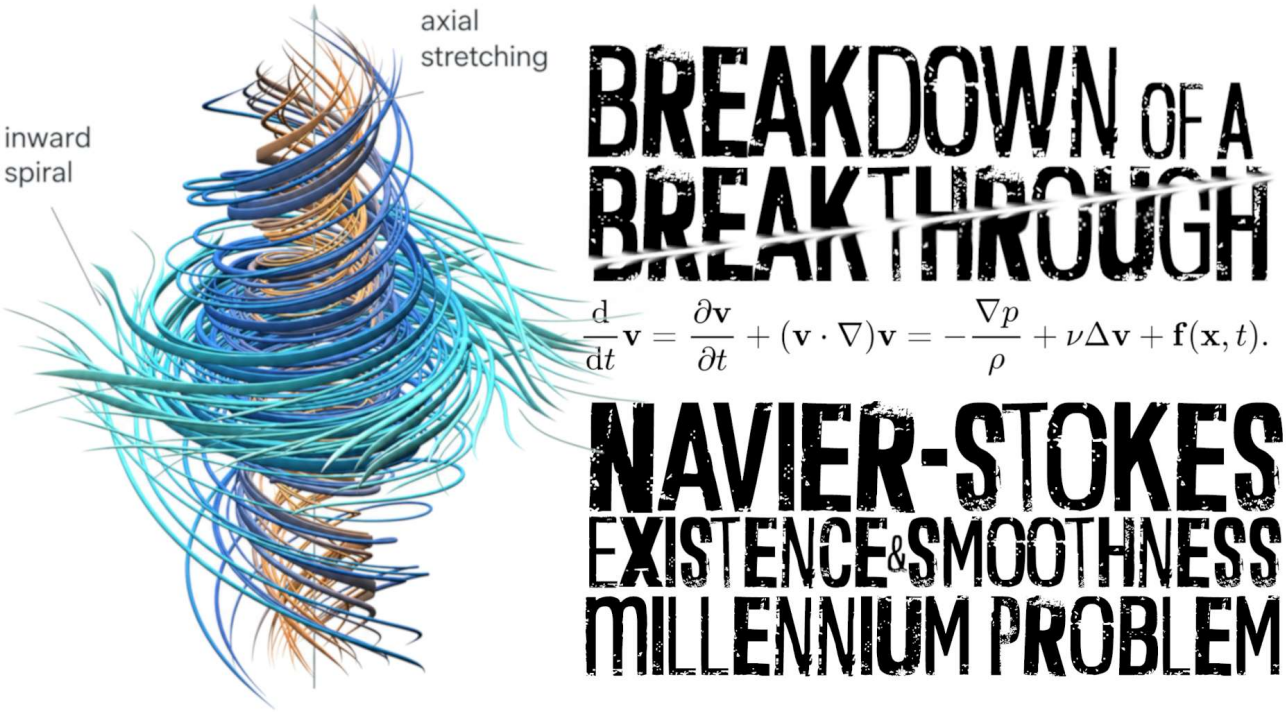
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DDES - DUT Differential Equations Seminar

Seminar Room **114**
9:00am - 9:45am, Thursday, October 29, 2026



Breakdown of a Breakthrough: Navier–Stokes Existence and Smoothness Millennium Problem

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Abstract. Mathematics itself has been turned upside down by a recent counterexample to the Navier–Stokes Existence and Smoothness Millennium Problem published by OpenAI. In this talk, the mathematical details of the construction will be discussed: First, Fefferman's formulation of the problem and in particular the crucial inclusion of a smooth force field. Second, an overview of the basic properties of OpenAI's construction from early in their paper. Third, a few scattered insights into the key steps to make it work from later in the paper. Additionally, other essential progress from various mathematicians will be discussed parallel.