**Title:** The dimension of singular sets in the 3D incompressible Navier-Stokes equations and in a related 1D surface growth model,

**Date:** 18th March 2016,

**Abstract:** The surface growth model is a 1D partial differential equation $u_t = -u_{xxxx} - \partial_{xx}|u_x|^2$, which shares many striking similarities with the 3D incompressible Navier-Stokes equations. These include the partial regularity results similar to those developed for the 3D Navier-Stokes equations by Caffarelli, Kohn, Nirenberg. We will discuss some of the implications of these results in estimating the box-counting dimension and the Hausdorff dimension of the set of singular points (i.e. blow-up points) of the Navier-Stokes equations and of the surface growth equation. We will also observe an example of a solution to the Navier-Stokes inequality with nearly one dimensional singular set.

(joint work with James Robinson)

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