

Partial Differential Equations Seminar

Title

A new local condition for partial regularity on the vorticity of a local suitable weak solution to the Navier–Stokes equations

Speaker

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Affiliation

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Date

May 24th , 15:00 ~ 16:00

Location

과학관 225

Abstract

We provide a new local epsilon-condition for the vorticity of a suitable weak solution to the Navier–Stokes equations that leads to the partial regularity. This replaces the well known limsup condition of Caffarelli–Kohn–Nirenberg by a more relaxed condition on the velocity. As a consequence, the partial regularity is obtained directly from the epsilon-condition of the vorticity without relying on the epsilon-condition of the velocity.



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