

Regularity criteria for the Navier-Stokes equations in terms of the velocity gradient

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Abstract. We present a survey of some recent regularity criteria for the incompressible 3D Navier-Stokes equations in the entire space based on items of the velocity gradient. We focus on criteria in terms of a) one diagonal or non-diagonal entry of the velocity gradient (see [1]), b) one directional derivative of the velocity field (see [2]) and c) the gradient of one velocity component (see [3]).

References

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