Recent results on the regularity of weak solutions to the Navier-Stokes equations in terms of one velocity component

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We study the conditional regularity for the incompressible Navier-Stokes equations in the whole three dimensional space in terms of one component u_3 of the velocity field $u = (u_1, u_2, u_3)$. We present a survey of relevant recent results and focus on criteria which are optimal and requiring small derivative degree of u_3.

References

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