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Zachary Bradshaw* (zbradshaw@math.ubc.ca) and **Zoran Grujic**. *Regularity criteria for the Navier-Stokes equations.*

Two *dynamically opposing conditions* are identified for Leray-Hopf weak solutions involving only peripherally high or low Littlewood-Paley modes. Both conditions are shown to prevent singularity formation at an initial possible blow-up time. A refined Ladyzhenskaya-Prodi-Serrin-type regularity criterion is also established and has the novel feature of considering only Littlewood-Paley blocks above a time-dependent threshold which is diverging to $+\infty$ at an initial blow-up time – i.e. *the window of relevant frequencies is vanishing*. (Received August 26, 2015)