

1142-35-124 **zoran grujic*** (zg7c@virginia.edu). *Restricted Morrey-type classes and 3D Navier-Stokes equations.*

It is well known that boundedness of a solution in certain Morrey scaling-invariant (with respect to the unique scaling transformation leaving the equations invariant) spaces suffices to prevent possible formation of singularities in the 3D NSE. Local versions of this regularity class are also available. The goal of this lecture is to present a regularity class comprised of ‘restricted’ Morrey-type conditions; in addition to the upper bound on the range of scales in play (as is the case in the local spaces), these conditions also feature a (dynamically determined) lower bound. This explicit lower bound is a manifestation of the diffusion scale. (Received August 31, 2018)