1142-35-141 **Hyunju Kwon*** (hkwon@math.ubc.ca). *Global Navier-Stokes flows for non-decaying initial data with slowly decaying oscillation.*

We consider the Cauchy problem of 3D incompressible Navier-Stokes equations for uniformly locally square integrable initial data. The existence of a time-global weak solution has been known, when the square integral of the initial datum on a ball vanishes as the ball goes to infinity. For non-decaying data, however, the only known global solutions are either for perturbations of constants or when the velocity gradients are in L^p with finite p. In this talk, I will outline how to construct global weak solutions for general non-decaying initial data whose local oscillations slowly decay.

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