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David Swanson* (david.swanson@louisville.edu), 328 Natural Science Building, University of Louisville, Louisville, KY. *Local existence and regularity of solutions to the d -dimensional Navier-Stokes equations with weighted initial data.*

We will consider local existence and regularity of solutions to the d -dimensional incompressible Navier-Stokes equations, $d \geq 2$, subject to initial data in a weighted Lebesgue space with a space-periodic condition in a subset of the variables. This is joint work with Animikh Biswas at the University of North Carolina at Charlotte. (Received September 10, 2007)