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Luan T Hoang*, Department of Mathematics and Statistics, Texas Tech University, Box 41042, Lubbock, TX 79409-1042, and **Vincent Martinez**. *On the normal form of Navier-Stokes equations in Gevrey spaces.*

We study the 3-D incompressible Navier-Stokes equations on periodic domains with potential body forces. The normal form associated with the solution's asymptotic expansion was previously proved to be a Poincaré-Dulac normal form in the space of smooth functions. Here, we derive Gevrey estimates for the homogeneous polynomials of this normal form. This is a step in establishing the normal form in the Gevrey spaces. The presentation is based on a joint work with Vincent Martinez. (Received February 22, 2015)