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**Alexey Cheskidov\*** ([acheskid@uic.edu](mailto:acheskid@uic.edu)), MSCS, 322 SEO, 851 S. Morgan Street, Chicago, IL 60607, and **Xiaoyutao Luo**. *Stationary and discontinuous weak solutions of the Navier-Stokes equations.*

We prove that there exists a nontrivial finite energy periodic stationary weak solution to the 3D Navier-Stokes equations (NSE). The construction relies on a convex integration scheme utilizing new stationary building blocks designed specifically for the NSE. The constructed family of approximate stationary solutions is also used to prove the existence of weak solutions of the NSE with energy profiles discontinuous on a dense set of positive Lebesgue measure. (Received January 25, 2019)