Yanyan Li* (yyli@math.rutgers.edu) and Zhuolun Yang. Regular solutions of the stationary Navier-Stokes equations on high dimensional Euclidean space. Preliminary report.

We study the existence of regular solutions of the incompressible stationary Navier-Stokes equations in n-dimensional Euclidean space with a given bounded external force of compact support. In dimensions $n \le 5$, the existence of such solutions was known. In this paper, we extend it to dimensions $n \le 15$. (Received March 07, 2021)