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Koch, Herbert (D-HDBG-A); **Tataru, Daniel** (1-NW)
Well-posedness for the Navier-Stokes equations.
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The authors consider (local- or global-in-time) well-posedness for the incompressible Navier-Stokes equation in a space of arbitrary dimension. They show the existence and uniqueness of solutions for initial data in a suitable rescaled space, denoted by BMO^{-1} in the paper. The proofs are based on suitable (pointwise) estimates of the heat (kernel) operator in that and related spaces. As a by-product, the paper contains previous results considered by Cannone, Planchon, Taylor and others. However, the arguments here are much simpler than in those authors' papers, and do not rely, for instance, on (real) hard harmonic analysis.

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Note: This list reflects references listed in the original paper as accurately as possible with no attempt to correct errors.