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Dallas Albritton*, albri050@umn.edu, and **Tobias Barker**. *Global weak solutions of the Navier-Stokes equations with initial values in critical spaces.*

We develop a theory of global weak solutions of the Navier-Stokes equations evolving from initial data in the critical Besov spaces $\dot{B}_{p,\infty}^{-1+3/p}$ with $p \in]3, \infty[$. Our solutions satisfy certain continuity properties with respect to the weak-* convergence of initial data. These properties allow us to obtain rather general results concerning blow-up criteria, minimal blow-up initial data, and forward self-similar solutions near the borderline space BMO^{-1} . (Received September 25, 2017)