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**Jeremy Trageser\*** (jtrageser@gwu.edu) and **Xiaofeng Ren.** *Discontinuous Local Minimizers to a Class of Semilinear Integral Equations.*

In this work we study a nonlocal bistable equation which arises as the Euler-Lagrange equation of a nonlocal van der Waals type functional. We compare nonlocal interactions given by Green's functions of second-order differential equations and investigate stationary points with multiple discontinuous interfaces. We consider criteria under which the function does not admit a stable stationary point of a finite number of discontinuities. We also provide criteria which ensures the existence of a stable stationary point. (Received September 11, 2016)