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Will Watkins* (ww7880@panam.edu). *Modified Wiener Equations*. Preliminary report.

Involutions play an important role in the theory of functions, functional equations, and functional differential equations. The exploration of differential equations whose arguments are involutions was initiated in (J. Wiener, “Differential Equations with Involutions”, *Differential Equations* **5** 1969, 1131-1137) and continued by numerous authors. They have applications in the theory of boundary-value problems, integral equations, in some biological models, and their solutions are used as Lyapunov functions to investigate the stability of differential difference equations. In the existing literature only involutions with a fixed point have been used. We investigate the properties of differential equations whose arguments are involutions without a fixed point. It is shown that there exists a sharp contrast in the asymptotic behavior, especially oscillations, between the two types of equations. (Received September 21, 2000)