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Title: Lyapunov theorems for measure functional differential equations via Kurzweil-equations

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Abstract: This is a joint work with Eduard Toon and Jaqueline Mesquita where we consider measure functional differential equations of the form $Dx = f(x_t, t)Dg$, where f is Perron-Stieltjes integrable, x_t is given by $x_t(\theta) = x(t+\theta), \theta \in [-r, 0]$, with $r > 0$, and Dx and Dg are the distributional derivatives in the sense of the distribution of L. Schwartz, with respect to functions $x : [t_0, \infty) \to \mathbb{R}^n$ and $g : [t_0, \infty) \to \mathbb{R}$, $t_0 \in \mathbb{R}$. We introduce new concepts of stability of the trivial solution of this equation whenever it exists. These new concepts generalize, for instance, the variational stability introduced by Š. Schwabik and M. Federson for FDEs and yet we are able to establish a Lyapunov-type theorem for measure FDEs via theory of generalized ordinary differential equations.