

ANALYSIS SEMINAR

Lyapunov stability for measure differential equations and dynamic equations on time scales

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Abstract. In this talk, we present results on stability for measure differential equations of type

$$x(t) = x(t_0) + \int_{t_0}^t f(x(s), s) \mathrm{d}g(s),$$

considering more general conditions under the Lyapunov functionals and concerning the functions f and g. Moreover, we prove these stability results for the dynamic equations on time scales, using the correspondence between the solutions of these last equations and the solutions of the measure differential equations.