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Kurzweil-Stieltjes integration for operators with applications

The contribution deals with initial value problems for the semilinear measure driven equations of the form

$$du = Au dt + f(t,u) dg,$$

where the real valued function g is non-decreasing (or, more generally, simply regulated), while A is an infinitesimal generator of a C_0 -semigroup of bounded linear operators on a given Banach space.

The existence of solutions with a bounded variation will be provided via an appropriate fixed point theorem.