

1040-35-128

Josefina Alvarez* (jalvarez@nmsu.edu), Las Cruces, NM 88003-8001, and **Michael Eydenberg** (mseyden@nmsu.edu) and **Maria Cristina Mariani** (mmariani@nmsu.edu).

Extensions of the Nemytsky operator: Measure solutions of nonlinear evolution equations.

The Nemytsky operator is a variable coefficient composition operator. We first extend it to signed measures, solving a class of nonlinear evolution equations. Then, we define a vector valued extension of the Nemytsky operator to solve systems of nonlinear evolution equations in the context of measures. (Received January 29, 2008)