

Measure neutral functional differential equations as generalized ODEs

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In the manuscript with Miguel Frasson, Patricia Tacuri and Jaqueline Mesquita, we introduce a class of equations called measure neutral functional differential equations, which we refer to simply as measure NFDEs and which encompasses classic classes of NFDEs. Our main result says that, similarly to other kinds of differential equations, measure NFDEs can also be regarded as abstract generalized ODEs. Then, using the relation between measure NFDEs and generalized ODEs, we prove results on the existence and uniqueness of solutions and continuous dependence of solutions on parameters for our class of measure NFDEs.