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STABILITY ON A CONE IN TERMS OF TWO MEASURES FOR DIFFERENTIAL EQUATIONS WITH "MAXIMA"

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ABSTRACT. Stability in terms of two measures for nonlinear differential equations with "maxima" is studied. A special type of stability in terms of two measures is defined. The new type of stability generalizes some of the known in the literature. Sufficient conditions for the defined stability are obtained. Cone-valued continuous Lyapunov functions are applied. Method of Razumikhin as well as comparison method for scalar ordinary differential equations have been employed. The usefulness of the introduced definition and the obtained sufficient conditions is illustrated through an example.

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