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# Dissipativity and stability analysis of fractional-order complex-valued neural networks with time delay \*

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## Abstract

As we know that the notion dissipativity is one of the important dynamical property of neural networks. Thus, the analysis of dissipativity of neural networks with time delay is more and more important in the field of research. In this paper, the authors establish a class of fractional-order complex-valued neural networks (FCVNNs) with time delay and intensively study the problem of dissipativity as well as global asymptotic stability of the considered FCVNNs with time delay. Based on the fractional Halanay inequality and suitable Lyapunov

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