

## ON THE STABILITY OF 2D GENERAL ROESSER LYAPUNOV SYSTEMS

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**Abstract.** This paper addresses the problem of stability for general two-dimensional (2D) discrete-time and continuous-discrete time Lyapunov systems, where the linear matrix inequalities (LMI's) approach is applied to derive a new sufficient condition for the asymptotic stability.

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**Key words.** 2D general systems, Lyapunov systems, Roesser system, stability, LMI.

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