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Global asymptotic stability of solutions of nonautonomous master equations

We discuss the *master equation* $\frac{dx}{dt} = A(t)x$, here $A(t)$ is an $n \times n$ matrix whose off-diagonal entries are the *transition rates* $a_{ij}(t)$ and whose columns sum to zero. These conditions ensure that the sum of the entries of a solution of the master equation is conserved and that nonnegative solutions remain nonnegative. Such matrices are called *W-matrices* by van Kampen. In this talk, we give some new results for the master equation concerning Earnshaw and Keener's conjecture.