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## Stability and asymptotic representation of the solutions of state-dependent delay equations

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## Abstract

In this lecture we investigate the stability of a class of differential equations of state dependent delays. It will be shown that under some conditions, which in certain cases are also necessary, the zero solution is exponentially stable. We also compare the order of the exponential stability of the nonlinear equation to that of its linearized equation. We show that in some cases, the two orders are equal. Our results are applied for the threshold-type delay systems.