

## Applied Mathematics Seminar

## Stability of a Linear Delay Differential Equation with Complex Coefficients

Ву

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**Abstract:** We consider a first-order delay differential equation with complex coefficients. The asymptotic stability of the zero solution depends on the coefficients of the equation. The problem is related to a coordination problem on directed graphs. We survey some of the results from the literature on stability. We investigate the convergence speed of the consensus problem and see how time delay and the underlying graph structure affect the convergence speed.

Date: 14 January 2022 Time: 15:00 Place: Zoom