

EVOLUTIONARY EQUATIONS AND DAES

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In Lecture 10 we have already encountered differential algebraic equations (DAEs) in the context of evolutionary equations. In this project we continue to study this class and aim for relating existing results in the context of partial-differential-algebraic equations. The topics included are the relation between DAEs and strongly continuous semigroups [5] as well as examples of DAEs in infinite dimensions such as appearing in electrical circuits [2, 3] or heat-wave systems [1, 4, 7].

This project is suited for 3 to 4 students and is suited for both more advanced students and those less experienced with operator theory and pde's.

REFERENCES

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