

# Operator semigroups for linear processes on metric graphs

**Marjeta Kramar Fijavž**

University of Ljubljana

Faculty of Civil and Geodetic Engineering, Ljubljana, Slovenia

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## **Abstract**

We consider linear differential equations (like transport, heat or wave equations) taking place along the edges of a metric graph and satisfying certain transmission conditions in the vertices. We are interested in the well-posedness and tackle the problem using methods from the theory of strongly continuous operator semigroups. We illustrate our results on a bunch of simple examples.