

# Some Problems in Cayley Graphs and Computational Approaches<sup>\*</sup>

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## **Abstract**

This talk is about Cayley graphs of semigroups, monoids, and groups. The main type of question is which type of graphs arise as (underlying simple) graphs of Cayley graphs. We will present several results and open questions regarding classes of Cayley graph of monoids and discuss how to use combinatorial properties in order to verify computationally if a graph is a Cayley graph. If time permits we will additionally talk about chromatic number of Cayley graphs of groups.


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