



CENTRO DE  
**MATEMÁTICA**  
UNIVERSIDADE DO PORTO

## Seminar on Semigroups, Automata and Languages

Wednesday, December 13, 2023, 14:00

Room FC1 119 (Math Bldg., FCUP)

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Mathematical Institute of the Slovak Academy of Sciences, Pavol  
Jozef Šafárik University in Košice

### ON REGULAR LANGUAGES WITH AN ASSOCIATED TOTAL ORDER

The presentation explores the idea of introducing the notion of a total order to regular languages and deterministic finite automata (DFAs) with a focus on the definitions as given in a paper by Shyr and Thierrin in 1974. We discuss some properties and consequences of these definitions and present a selection of known results mainly related to state complexity. Finally, we outline a series of interesting open problems that are going to be subject to further investigation.



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