



Centro de Matemática
Universidade do Porto

Seminar on Semigroups, Automata and Languages

Nilpotency and strong nilpotency for finite semigroups.

M. Hossein Shahzamanian C.
(FCUP-CMUP)

Abstract: Nilpotent semigroups in the sense of Mal'cev are defined by semigroup identities. Finite nilpotent semigroups constitute a pseudovariety, MN , which has finite rank. The semigroup identities that define nilpotent semigroups, lead us to define strongly Mal'cev nilpotent semigroups. Finite strongly Mal'cev nilpotent semigroups constitute a non-finite rank pseudovariety, SMN . The pseudovariety SMN is strictly contained in the pseudovariety MN but all finite nilpotent groups are in SMN . We show that the pseudovariety MN is the intersection of the pseudovariety BG_{nil} with a pseudovariety defined by a κ -identity. We further compare the pseudovarieties MN and SMN with the Mal'cev product $J \circledast G_{nil}$. (Joint work with J. Almeida from FCUP-CMUP and M. Kufleitner from FMI, University of Stuttgart)

Date: Friday, 13 October 2017, 14:30

Place: Room FC1 005, DMat-FCUP



Com o apoio do projeto UID/MAT/00144/2013