The 2nd Combinatorics Day

Saturday, 17th of March of 2012

DMUC, room 2.5

Abstracts

17:30-18:00 **Alessandro Conflitti** (CMUC, UC):

Combinatorics of binary square matrices with generalized Bruhat order

Abstract: Recently, Brualdi et al. defined a partial order on an interesting class of binary matrices which generalizes the classical Bruhat order on the symmetric group, seen as the set of permutation matrices. We study the structure of this poset, and we give some enumerative and constructive results, e.g. about the maximal length of a chain, the largest size of an antichain, and explicit efficient algorithms to produce the longest chain and a large antichain. This is a joint work with Carlos Martins da Fonseca and Ricardo Mamede.