

# **Seminário CEMAT-Ciências\***

**21 de Fevereiro - sala 6.2.48**

**11:00**

## **A new look at permutation groups of simple diagonal type**

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### **Abstract:**

Permutation groups of simple diagonal type form one of the classes of (quasi)primitive permutation groups identified by the O’Nan-Scott Theorem. They also occur among the maximal subgroups of alternating and symmetric groups. Until now, they were not considered as a geometric class in the sense that they were not viewed as stabilizers of geometric or combinatorial objects. In this talk I will report on some new research, carried out in collaboration with Cheryl Praeger, Peter Cameron and Rosemary Bailey, whose results show that these groups can also be viewed as full stabilizers of certain combinatorial structures. I will also show that a permutation group of simple diagonal type is the automorphism group of a graph which is constructed as the edge union of Hamming graphs. The results hold also for infinite permutation groups.

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