

*Public Lecture, IPM-Isfahan*

# **Prof. Ian M. Wanless**

**Monash University (Melbourne, Australia)**

*Title:*

## **Embedding partial Latin squares in Cayley tables**

***Abstract:** Sudoku puzzles are examples of a combinatorial object called a partial latin square (PLS). In 1974 Denes and Keedwell asked for each  $n$  what is the smallest PLS that cannot embed into any group's Cayley table of order  $n$ . In 2012 Hirsch and Jackson asked what is the smallest PLS that can be embedded in an infinite group but not into any finite group. We answer both these questions and a couple of related ones.*

**Jun 6, 2016 (7 th khordad 1395) at 16:00-17:00.**

**IPM-Isfahan, Isfahan, Iran**