

**Institute for Mathematics and its Applications**  
**2011 Seminar Series: 3**  
University of Wollongong

**Title:** The Open Pit Mining Production Scheduling Problem with Block Processing Selectivity

**Speaker:** Irina Dumitrescu (University of Melbourne)

**Time and Date:** 1:30pm, Thursday April 28, 2011

**Location:** Room 67.201

**Abstract:** Given a discretization of an orebody as a block model, the open pit mining production scheduling problem (OPMPSP) consists of finding the sequence in which the blocks should be removed from the pit, over the lifetime of the mine, such that the net present value of the operation is maximized. In practice, due to the large number of blocks and precedence constraints linking them, blocks are typically aggregated to form larger scheduling units. We show how the OPMPSP, formulated as a mixed integer programme, can be solved using aggregates to schedule the mining process and individual blocks for processing decisions.