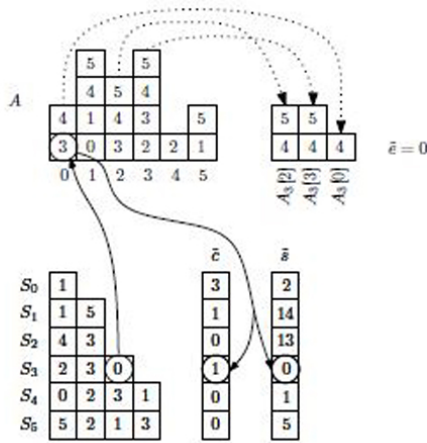


# Finding extremal sets on the GPU

Fort, Marta; Sellares, J. Antoni



The extremal sets of a family  $FF$  of sets consist of all sets of  $FF$  that are maximal or minimal with respect to the partial order induced by the subset relation in  $FF$ . In this paper we present efficient parallel GPU-based algorithms, designed under CUDA architecture, for finding the extremal sets of a family  $FF$  of sets. The complexity analysis of the presented algorithms together with experimental results showing the efficiency and scalability of the approach is provided.