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*Joy and Complexity of Blokus Games*

Blokus is a delightful 25-year old board game played by 2-4 people, alternately tiling a grid with polyomino pieces. The game is popular and enjoyable in part due to the large range of game play in spite of very simple rules and a hard limit on the number of moves. We claim that it may also be interesting due to its computational complexity. We introduce some 1 and 2 player Blokus variants, including versions of the classic combinatorial games Domineering and Cram, and discuss the relation to classic tiling problems. We show that a couple Blokus puzzle games (for 1 player) are NP-Complete by reduction, and that one 2 player game (with many tiles of a single shape) is PSPACE-Complete, by an argument similar to the recent proof for Battle Sheep. This is joint work with Ian Shehadeh.