

Combinatorics Seminar

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**Wednesday, March 21, 2012
2:00 pm, HH-3013**

Lessons in Losing: An Introduction to Misère Game Theory

Abstract:

A combinatorial game is a two-player game with no elements of chance, no hidden information, and no ties. Under normal rules, the player who makes the last move wins the game; under misère rules, whoever makes the last move loses. Normal-play games have been extensively analyzed and exhibit nice mathematical structure, including a notion of addition that forms the set of all games into an abelian group. Misère games have been much less studied, as almost all of the intuitive algebraic structure seems to fall apart when we make the last player to move the loser. This talk will introduce combinatorial games in general before highlighting some of the challenges inherent in misère play. We will then consider how restricting the game universe can allow for more useful analysis of misère games.