1096-91-2303 **Tim Hsu** (hsu@math.sjsu.edu) and **Charles Petersen*** (petersenc19@yahoo.com).
Upset-downset. Preliminary report.

Let P be a finite poset. For $x \in P$, recall that the *downset* and *upset* of x are defined to be $\check{x} = \{y \in P \mid y \leq x\}$ and $\hat{x} = \{y \in P \mid y \geq x\}$, respectively. We define the *upset-downset game* $G(P)$ to be the game with the following possible moves: For any $x \in P$, **Left** may remove the downset of x, leaving the game $G(P - \check{x})$; and for any $x \in P$, **Right** may remove the upset of x, leaving the game $G(P - \hat{x})$. The first player unable to move loses, i.e., $G(\emptyset) = 0$. By standard results, we see that upset-downset is a partizan game whose values are all infinitesimal ("all small").

This talk describes our work in two special cases of upset-downset. In the case where the Hasse diagram of P is a disjoint union of complete bipartite graphs, we exhibit a winning strategy for any winnable position. We also describe preliminary results in the case where P is a rank 2 poset where the downset of every rank 2 element x contains exactly two elements of rank 1. (Such posets may be thought of as graphs, where the rank 2 elements come from edges and the rank 1 elements come from vertices.) (Received September 17, 2013)