1145-VV-684   **Wing Hong Tony Wong*** (`wong@kutztown.edu`), 15200 Kutztown Rd, Kutztown, PA 19530, and **Jiao Xu**. *A probabilistic chip-collecting game.*

Alice and Bob are playing a very simple game. Each of them starts with no chips, and they take turns to gain 1 or 2 chips randomly and independently with equal probability, with Alice going first. The first player who collect at least n chips is the winner. In this talk, we discuss the winning probability for Bob and analyze a new integer sequence. We also show that this game is highly disadvantageous to Bob, even when n is large. Furthermore, we study several variations of this game and determine the winning probability for Bob in each case. (Received September 12, 2018)