1145-M5-1530   **Paul Ellis**, **Sam Coskey** and **Japheth Wood*** (`jwood@bard.edu`). *Nim and Jim - Solving Combinatorial Games through Data Collection, Conjecture, and Proof.*

Solving a combinatorial game means deducing its winning strategy, and is equivalent to partitioning its game states into Winning and Losing positions. We present several significant and entertaining games, including Nim and Jim, and show how students may be able to solve these games, guided by patterns gleaned from data collection. (Received September 23, 2018)