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Eric Lars Sundberg* (sundberg@oxy.edu) and **Emily Heath**. *Economical extremal hypergraphs for the Erdős–Selfridge theorem.*

A positional game is essentially a generalization of tic-tac-toe played on a hypergraph (V, \mathcal{H}) . A pivotal result in the study of positional games is the Erdős–Selfridge theorem, which gives a simple criterion for the existence of a Breaker’s winning strategy on a finite hypergraph \mathcal{H} . It has been shown that the bound in the Erdős–Selfridge theorem can be tight and that numerous extremal hypergraphs exist that demonstrate the tightness of the bound. We call an extremal hypergraph economical if it is n -uniform and Maker has an n -turn winning strategy on that hypergraph. While classifying all extremal hypergraphs for the Erdős–Selfridge theorem is still an open problem, we make progress on this problem by classifying the economical extremal hypergraphs for the Erdős–Selfridge theorem. (Received September 16, 2014)