

Abstract Submitted
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Complexity and Ability in Ising Games AYAX RAMIREZ, Southwestern College, MICHAEL GEORGE, Southwestern College — In previous work [1, 2], we discussed various facets of designs in games, and considered the evolution [2] of Ising games. The traditional aspect of game theory, with its focus on rational decisions, was not considered in this work. Instead, there was a predominant interest in the time evolution of design toward a goal design, and resulting levels of frustration. There was also a concern with time-reversal properties. In the new work, our goal is to consider the “molecular structure” of the Ising model as it evolves, and to associate this molecular structure with feedback into the structure that can be understood in algorithmic terms. We develop an analogy with the famous Malthusian argument concerning exponential population increase, associating ability to cope with complexity, and algorithmic complexity, and discuss biological implications of the ideas associated with these games. [1] M. George, A nonequilibrium statistical model based on latin squares, paper presented at WorldComp’07, Las Vegas, Nevada, June 25-28, 2007. [2] M. George, Classical and quantum Ising games, paper presented at Fourth International Conference in Applied Mathematics and Computing, Plovdiv, Bulgaria, August, 2007.

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