

Abstract Submitted
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Cooperation/Competition Property Heterogeneity¹ XIU-LIAN XU, CHUN-HUA FU, DA-REN HE, Yangzhou University — We show that the heterogeneity index, which was proposed by Hu and Wang (Physica A 2008 387 3769), can be used to describe the disparity of the cooperation sharing or competition gain distributions that is very important for the cooperation/competition system dynamic understanding. An analytical relation between the distribution parameters and the heterogeneity index is derived, which is in a good agreement with the empirical results. Our theoretical and empirical analyses also show that the relation between the distribution parameters can be analytically derived from so-called Zhang-Chang model (Physica A 2006 360 599 and 2007 383 687). This strongly recommends a possibility to create a general dynamic cooperation/competition model based on Zhang-Chang model.

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