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Categories of games

Game theory has applications to logic, philosophy, economics, political science, biology, computer sciences [1] [3] and ... category theory! As an introduction, I will recall that Conway's games [2] are the objects of a category in which the maps are winning communication strategies [8]; the category is symmetric monoidal closed and compact. I will recall that Whitman's solution of the word problem for free lattices [9] can be described in terms of game theory [7]. I will extend Whitman's theorem to free bicomplete categories [5] [6] and I will discuss its potential applications to the construction of new categories of games.

References:

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