Human creative interaction of group sports: Information-based modeling

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Humans can creatively solve various problems through competition and cooperation among groups. However, with respect to the creative interaction such as sociality and body movement, we cannot even extract its feature from behavioral data yet. Here, we show information-based modeling in the creative interaction of group sport as an example of complex social interaction with an explicit and implicit context. First, we introduce the problems in intra-group cooperation and inter-group competition in the ballgame. In terms of information-based modeling, score prediction system and the cognitive process of cooperative players are explained. Next, we show two-player competition and its motor system modeling. Finally, we discuss future perspectives.