

Waiter-Client H -games

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Let H be a fixed graph and n, q be positive integers. In the Waiter-Client H -game (known in the literature as a Picker-Chooser game) in each round Waiter selects exactly $q + 1$ free edges of the complete graph K_n and offers them to Client. Then Client selects one of them which he keeps and the remaining q elements are claimed by Waiter. The game ends when there is no free edge left. Waiter tries to force as many Client's copies of H in K_n as possible, while the aim of Client is opposite. We will talk on some relations between the value of the game and the expected number of copies of H in the random graph $G(n, 1/(q + 1))$.