

# Absorption Paths and Equilibria in Quitting Games

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**Keywords:** Stochastic games, quitting games, linear complementarity problems, Q-matrices, continuous equilibria.

**Abstract:** We study quitting games and define the concept of absorption paths, which is an alternative definition to strategy profiles that accommodates both discrete-time aspects and continuous-time aspects, and is parametrized by the total probability of absorption in past play rather than by time. We establish that any quitting game that does not have simple equilibria (that is, an equilibrium where the game terminates in the first period or one where the game never terminates) has a sequentially 0-perfect absorption path. We finally identify a class of quitting games that possess sequentially 0-perfect absorption paths and present an algorithm to compute them.