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The replicator dynamics for generalized Nash Games

Generalized Nash Games are a powerful modelling tool that have seen some development in the past two decades. Evolutionary Games have been around a bit longer and seek describe how natural selection can drive phenotypic changes in interacting populations. We show how these two independently formulated models can be linked under a common framework and how this framework can be used to expand each model. At the center of this unified model is the Replicator Equation and the relationship we establish between it and the lesser known Projected Dynamical System.