

AKSOE 4 Evolutionary Game Theory

Zeit: Samstag 09:30–10:30

Raum: TU P-N203

Hauptvortrag

AKSOE 4.1 Sa 09:30 TU P-N203

Evolutionary Games: Non-linear Dynamics at Work — ●KARL SIGMUND — Institute for Mathematics, University of Vienna, Austria

This is a survey on a type of non-linear dynamics which has been motivated by ideas of the theoretical biologist John Maynard Smith, and which has blossomed remarkably during the last decade. Evolutionary games are not only essential for understanding biological and cultural evolution, they also proved seminal for experimental studies in economics and social sciences. This talk offers an overview of the different types of dynamics (replicator, best reply, imitation, myopic adjustment, cellular automata...), using as examples models stemming from a wide variety of backgrounds, all having in common a rock-paper-scissors structure which cannot be reduced to an equilibrium analysis.