**Maintenance of cooperation in evolving heterogenous populations
with motility** MARIANNE BAUER, Ludwig-Maximilians Universitt, STEFFEN
RULANDS, University of Cambridge/Max Planck Institut PKS, JOERG MARTIN,
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nature is a fundamental, still unsolved problem in biology. We study the evolution
of cooperation in populations with different motility rates. We show under what
conditions cooperation can be maintained in such populations using a simple im-
plementation of the prisoner's dilemma and fitness update mechanism. Specifically,
we show why cooperation can be maintained for surprisingly large costs and high
motility rates, and discuss the average motility that is selected after time evolution

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