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Innovate or imitate?

Behavioural technological change*

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Abstract

We propose a behavioural model of technological change with evolutionary switching between costly innovators and free imitators, and study the endogenous interplay of innovation decisions, market price dynamics and technological progress. Innovation and imitation are strategic substitutes and exhibit negative feedback. Endogenous technological change is the cumulative outcome of innovation decisions. There are three scenarios: market breakdown, Schumpeterian rents and learning curves. The latter is characterised by an increasing fraction of innovators when demand is elastic, while inelastic demand allows technological progress with shrinking innovation effort. Model simulations are compared to stylised features of empirical data in two industrial sectors.

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