

"Structural Change in Innovation" joint with Diego Comin and Danial Lashkari

Abstract:

This paper studies the evolution of sectoral innovation and productivity over the development path. It advances the hypothesis, and documents empirically, that innovation has experienced structural change. First, we leverage historical patent data and other data sources to document structural transformation in innovation and productivity across broad sectors of the economy over the last two centuries. We then propose a theory in which structural transformation in innovation emerges as the equilibrium outcome of the two-way interaction between (i) rising standards of living due to innovation and (ii) as economies become richer, returns to innovation increasing relatively more for more income-elastic sectors. Finally, we quantify our model and explore its implications for the future of economic growth.