

HKUST ECON Seminar

22 April, 2026, 4:00 - 5:30 pm

Innovation Bubbles

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Abstract:

We study firms' synchronized beliefs about success probabilities in a symmetric innovation race with competing technologies. We assume that each firm receives a binary signal, which induces either an optimistic or pessimistic belief, and all signals are exchangeable. We characterize the exchangeable belief polytope and derive sharp bounds on the probabilities that all firms simultaneously hold pessimistic beliefs or fully optimistic beliefs (innovation bubbles). We show that these two forms of belief synchronization are fundamentally asymmetric: the upper bound on collective pessimism is attainable, whereas the corresponding upper bound on bubbles is not. Moreover, more informative signals restrict both forms of belief synchronization. Our model suggests several policy implications on innovation bubbles and technological cycles.