“Stability and Complexity in Model Banking Systems”

Summary: The recent banking crises have made it clear that increasingly complex strategies for managing risk in individual banks and investment funds (pension funds, etc) has not been matched by corresponding attention to overall systemic risks. Simple mathematical caricatures of “banking ecosystems”, which capture some of the essential dynamics and which have some parallels (along with significant differences) with earlier work on stability and complexity in ecological food webs, have interesting implications. In particular, strategies that tend to minimise risk for individual banks can – under certain circumstances – maximise the probability of systemic failure. This talk will first sketch these models and the ensuing conclusions.