

**W. BRIAN ARTHUR****Santa Fe Institute**

Brian Arthur is a leading economist and technology thinker. He is best known for his pioneering theoretical work on positive feedbacks or increasing returns in the economy—what happens when products that gain market share find it easier to gain further market share—and their role in locking markets in to the domination of one or two players. Arthur is also one of the pioneers of the science of complexity—the science of how patterns and structures self-organize. He is one of the founders of the Santa Fe Institute, and has served many years on its Science Board and Board of Trustees.

Arthur has been Dean and Morrison Professor of Economics and Population Studies at Stanford, and Citibank Professor at the Santa Fe Institute. He holds a PhD in operations research from Berkeley, along with other degrees in economics, mathematics and electrical engineering. He is a Fellow of the Econometric Society and the World Economic Forum. He is the recipient of the Schumpeter Prize in Economics in 1990, the inaugural Lagrange Prize in Complexity Science in 2008, and two honorary doctorates. His books include *Increasing Returns and Path Dependence in the Economy* (1994); and *The Nature of Technology, What it Is and How it Evolves* (2009).

**Abstract****The Economy: How it Emerges and Evolves.**

Over the last hundred and fifty years economics has developed a rigorous theory of prices, production, and consumption in the economy. But a second problem—how an economy arises, how it changes in structure, and how it evolves over time—has been largely neglected by modern theory. Recent ideas and techniques from complexity economics are changing this. Professor Arthur will talk about these new ideas and what they are showing us.