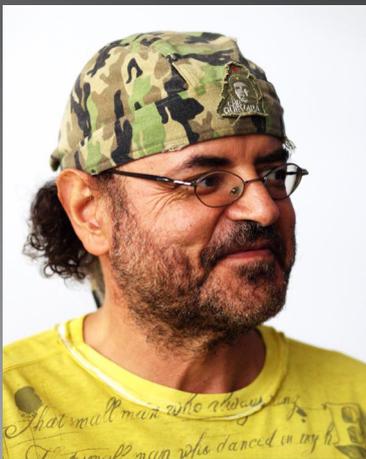




Distinguished Lecture Series

Computational Insights and the Theory of Evolution



Monday, April 21st, 2014 10:00am
Auditorium 106 at New IIS Building

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Abstract

Covertly computational ideas have influenced the Theory of Evolution from the very start. After a historical overview, I shall discuss recent work on Evolution that was inspired and informed by computational insights. Considerations about the performance of genetic algorithms led to a novel theory of the role of sex in Evolution based on the concept of mixability, while the equations describing the evolution of a species can be reinterpreted as a repeated game between genes played through the multiplicative updates algorithm. Finally, a theorem on Boolean functions helps us understand better Waddington's genetic assimilation as well as mechanisms for the emergence of novel traits.

For more information: <http://www.iis.sinica.edu.tw/>

