

鈴木泰博

所属：名古屋大学大学院情報科学研究科  
複雑系科学専攻

専門分野： 自然計算、複雑系

本領域における分担テーマ：(少数分子の)生化学反応系の数理モデル化とシミュレーション

これまでの主要な研究成果：

- 化学反応の抽象モデル, Abstract Rewriting System on Multisets, ARMSの提案
- ARMSの連続化による微分方程式系の導出
- Gillespie法を基に、確率過程を連続化する方法の提案
- 少数分子系の分析、確率場鳥瞰法の提案



Lotoka-Volterraモデルの確率場  
Fluctuation Induced Structure in Chemical  
Reaction with Small Number of Molecules,  
Y. Suzuki, PICT 2, Springer Verlag 2010

Name: Yasuhiro Suzuki



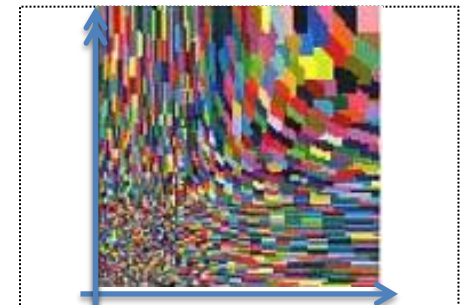
Affiliation : Dept. of Complex Systems Sci.  
Graduate School of Info. Sci.Nagoya Univ.

Area of Expertise : Natural Computing, Complexity Sci, Systems Biol.

Research Theme in This Project : Modeling and Designing bio-chemical pathway (esp. reactions with few molecules)

Past Main Research Results :

- Propose an Abstract model of Chemical system, Abstract Rewriting System on Multisets, ARMS
- Bridging mathematically btw. ARMS and Differential Equations
- Propose “deterministic-stochastic algorithm” of Chemical reactions, based on Gillespie method.
- Examine Chemical reactions with few molecules (propose “birds-eye view” of chemical reactions )



The Stochastic field of Lotoka-Volterra  
Fluctuation Induced Structure in Chemical  
Reaction with Small Number of Molecules,  
Y. Suzuki, PICT 2, Springer Verlag 2010