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Education	1999-2002 Ph.D. in Applied Mathematics, Xi'an Jiaotong University 1996-1999 M.S. in Applied Mathematics, Xi'an Jiaotong University 1985-1989 B.S. in Mathematics, Henan Unversity
Employment	2011- Professor, College of Science, University of Shanghai for Science and Technology, 2006-2010 Associate Professor, College of Science, University of Shanghai for Science and Technology, 2005-2006 Lecturer, College of Science, University of Shanghai for Science and Technology, 1989-1996 First High School in Jiaozuo City of Henan Province, High School Teacher of First Level
Teaching	**Teaching for undergraduate student**: ● Ordinary Differential Equation ● Probability Theory & Mathematical Statistics ● Complex Function and Integral Transform ● Linear / Advanced Algebra **Teaching for graduate students**: ● Qualitative and Stability Theory of Ordinary Differential Equations ● Geometry and Bifurcation Theory of Ordinary Differential Equation ● Fundamentals of Mathematical Biology
Research Interests	**Differential equations and Dynamical systems**, including: ● Qualitative theory and stability theory of differential equations ● Bifurcation theory and applications **Mathematical modeling in Ecology and Epidemiology**, including:

	• Population dynamics • Transmission dynamics of infectious diseases
Research Projects	2017-2020: Principal Investigator sponsored by the National Natural Science Foundation of China (NSFC): **Study on the dynamical models of marine plankton ecological system under the effect of climate change** 2013-2016: Principal Investigator sponsored by the National Natural Science Foundation of China (NSFC): **Study on the dynamic model of chemostat with uncertainties under the influence of noise** 2009-2011: Principal Investigator sponsored by the National Natural Science Foundation of China (NSFC): **Study on the reaction kinetic models of recombinant plasmid DNA cell culture**
Publications/ Preprints (selected)	1. Dongmei Wu, Hao Wang, **Sanling Yuan***, Noise-induced transitions in a nonsmooth predator-prey model with stoichiometric constraints, Bulleting of Mathematical Biology (revised). 2. Xingwang Yu, **Sanling Yuan***, Asymptotic properties of a stochastic chemostat model with two distributed delays and nonlinear perturbation, Discrete and Continuous Dynamical System-B (in press). 3. Xingwang Yu, **Sanling Yuan***, Tonghua Zhang, Asymptotic properties of stochastic nutrient-plankton food chain models with nutrient recycling, Nonlinear Analysis: Hybrid Systems 34, 209-225 (2019). 4. Jie Jiang, Anglu Shen, Hao Wang, **Sanling Yuan***, Regulation of phosphate uptake kinetics in the bloom-forming dinoflagellates *Prorocentrum donghaiense* with emphasis on two-stage dynamic process, Journal of Theoretical Biology 463, 12–21 (2019). 5. Yu Zhao, Liang You, Daniel Burkow, **Sanling Yuan***, Optimal harvesting strategy of a stochastic inshore-offshore hairtail fishery model driven by Lévy jumps in a polluted environment, Nonlinear Dynamics 95(2), 1529-1548 (2019). 6. Dongxue Jia, Tonghua Zhang, **Sanling Yuan***, Pattern dynamics of a diffusive toxin producing phytoplankton-zooplankton model with three-dimensional patch, International Journal of Bifurcation and Chaos 29(4), 1930011 (2019).

7. Dongmei Wu, Hao Wang, **Sanling Yuan***, Stochastic sensitivity analysis of noise-induced transitions in a predator-prey model with environmental toxins, Mathematical Biosciences and Engineering, Mathematical Biosciences and Engineering 16(4): 2141–2153 (2019).

8. Xingwang Yu, **Sanling Yuan***, Tonghua Zhang, Survival and ergodicity of a stochastic phytoplankton-zooplankton model with toxin producing phytoplankton in an impulsive polluted environment, Applied Mathematics and Computation 347, 249–264 (2019).

9. Qiang Li, **Sanling Yuan***, Cross-Diffusion Induced Turing Instability for a Competition Model with Saturation Effect, Applied Mathematics and Computation 347, 64–77 (2019).

10. Xuehui Ji, **Sanling Yuan***, Tonghua Zhang, Huaiping Zhu, Stochastic modeling of algal bloom dynamics with delayed nutrient recycling, Mathematical Biosciences and Engineering 16(1), 1–24 (2019).

11. Xingwang Yu, **Sanling Yuan***, Tonghua Zhang, About the optimal harvesting of a fuzzy predator-prey system: A bioeconomic model incorporating a prey refuge and predator mutual interference, Nonlinear Dynamics 94, 2143–2160（2018）.

12. Juan M. Jaramillo Reina, J. Ma, P. van den Driessche, **Sanling Yuan**, Host contact structure is important for the recurrence of influenza A, Journal of Mathematical Biology 77, 1563-1588 (2018).

13. Chaoqun Xu, **Sanling Yuan***, Tonghua Zhang, Sensitivity analysis and feedback control of noise-induced extinction for competition chemostat model with mutualism, Physica A: Statistical Mechanics and its Applications 505, 891-902 (2018).

14. Chaoqun Xu, **Sanling Yuan***, Tonghua Zhang, Average break-even concentration in a simple chemostat model with telegraph noise, Nonlinear Analysis: Hybrid Systems 29, 373-382 (2018).

15. Xingwang Yu, **Sanling Yuan***, Tonghua Zhang, The effects of toxin producing phytoplankton and environmental fluctuations on the planktonic blooms, Nonlinear Dynamics 91, 1653–1668 (2018).

16. Shuixian Yan, Yu Zhang, Junling Ma, **Sanling Yuan***, An edge-based SIR model for sexually transmitted diseases on

the contact network, Journal of Theoretical Biology 439, 216–225 (2018).

17. Xingwang Yu, **Sanling Yuan***, Tonghua Zhang, Persistence and ergodicity of a stochastic single species model with Allee effect under regime switching, Communications in Nonlinear Science and Numerical Simulation 59, 359-374 (2018).

18. Yu Zhao, Mingtao Li, **Sanling Yuan***, Analysis of Transmission and Control of Tuberculosis in Mainland China, 2005-2016, Based on the Age-Structure Mathematical Model, International Journal of Environmental Research and Public Health 14, 1192 (2017) .

19. Xuehui Ji, **Sanling Yuan***, Jiao Li, Stability of a stochastic SEIS model with saturation incidence and latent period, Journal of Applied Analysis and Computation 7(4), 1652-1673 (2017).

20. Yu Zhao, **Sanling Yuan***, Tonghua Zhang, Stochastic periodic solution of a non-autonomous toxic-producing phytoplankton allelopathy model with environmental fluctuation, Communications in Nonlinear Science and Numerical Simulation 44, 266-276 (2017).

21. **Sanling Yuan***, Xuehui Ji and Huaiping Zhu, Asymptotic behavior of a delayed stochastic logistic model with impulsive perturbations, Mathematical Biosciences and Engineering 14, 1477-1498 (2017).

22. Yu Zhao, **Sanling Yuan***, Optimal harvesting policy of a stochastic two-species competitive model with Levy noise in a polluted environment, Physica A: Statistical Mechanics and its Applications 477, 20-33 (2017).

23. Xichao Duan, **Sanling Yuan***, Global dynamics of an age-structured virus model with saturation effects, Mathematical Methods in Applied Sciences 40, 1851-1864 (2017).

24. Chaoqun Xu, **Sanling Yuan***, Competition in the chemostat: a stochastic multi-species model and its asymptotic behavior, Mathematical Biosciences 280, 1-9 (2016).

25. Chaoqun Xu, **Sanling Yuan***, Tonghua Zhang, Global dynamics of a predator-prey model with defence mechanism for prey, Applied Mathematics Letters 62,

42-48 (2016).

26. Chaoqun Xu, **Sanling Yuan***, Tonghua Zhang, Stochastic sensitivity analysis for a competition turbidostat model with inhibitory nutrient, International Journal of Bifurcation and Chaos 26, 1650173 (2016).

27. Yu Zhao, **Sanling Yuan***, Qimin Zhang, The effect of Lévy noise on the survival of a stochastic competitive model in an impulsive polluted environment, Applied Mathematical Modelling 40, 7583-7600 (2016).

28. Yu Zhao, **Sanling Yuan***, Tonghua Zhang, The stationary distribution and ergodicity of a stochastic phytoplankton allelopathy model under regime switching. Communications in Nonlinear Science and Numerical Simulation 37, 131-142 (2016).

29. Xichao Duan, **Sanling Yuan***, Kaifa Wang, Dynamics of a diffusive age-structured HBV model with saturating incidence, Mathematical Biosciences and Engineering 13(5), 935-968 (2016).

30. Yu Zhao, **Sanling Yuan***, Stability in distribution of a stochastic hybrid competitive Lotka-Volterra model with Lévy jumps, Chaos, Solitons & Fractals 85, 98-109 (2016).

31. **Sanling Yuan**, P. van den Driessche, Frederick H. Willeboordse, Z. Shuai and J. Ma, Disease Invasion Risk in a Growing Population, Journal of Mathematical Biology 73, 665-681 (2016).

32. Chaoqun Xu, **Sanling Yuan***, An analogue of break-even concentration in a simple stochastic chemostat model, Applied Mathematics Letters 48, 62-68 (2015).

33. Yu Zhao, **Sanling Yuan***, Junling Ma, Survival and Stationary Distribution Analysis of a Stochastic Competitive Model of Three Species in a Polluted Environment, Bulletin of Mathematical Biology 77, 1285-1326 (2015).

34. Yu Zhao, **Sanling Yuan***, Qimin Zhang, Numerical solution of a fuzzy stochastic single-species age-structure model in a polluted environment, Applied Mathematics and Computation 260, 385-396 (2015).

35. Chaoqun Xu, **Sanling Yuan***, Spatial periodic solutions in a delayed diffusive predator–prey model with herd behavior, International Journal of Bifurcation and Chaos 25, 1550155 (2015).

	36. Xichao Duan, **Sanling Yuan***, Zhipeng Qiu, Junling Ma, Global stability of an SVEIR epidemic model with ages of vaccination and latency, Computers and Mathematics with Applications 68, 288-308 (2014).
	37. Xichao Duan, **Sanling Yuan***, Xuezhi Li, Global stability of an SVIR model with age of vaccination, Applied Mathematics and Computation 226, 528-540 (2014).
	38. **Sanling Yuan***, Chaoqun Xu, Tonghua Zhang, Spatial dynamics in a predator-prey model with herd behavior, CHAOS 23, 033102 (2013).
	39. **Sanling Yuan***, Tonghua Zhang, Dynamics of a plasmid chemostat model with periodic nutrient input and delayed nutrient recycling, Nonlinear Analysis: Real World Applications 13, 2104-2119 (2012).
	40. **Sanling Yuan***, Yu Zhao, Anfeng Xiao and Tonghua Zhang, Bifurcation and chaos in a pulsed plankton model with instantaneous nutrient recycling, Rouky Mountain Journal of Mathematics 42, 1387-1409 (2012).
	41. **Sanling Yuan***, Weiguo Zhang, Yu Zhao, Bifurcation analysis of a model of plasmid-bearing, plasmid-free competition in a pulsed chemostat with an internal inhibitor, IMA Journal of Applied Mathematics 76, 277−297 (2011).
	42. **Sanling Yuan***, Yongli Song, Junhui Li, Oscillations in a plasmid turbidostat model with delayed feedback control, Discrete and Continuous Dynamical Systems-Series B 15, 809-914 (2011).
	43. **Sanling Yuan***, Pan Li, Stability and direction of Hopf bifurcations in a pair of identical tri-neuron network loops, Nonlinear Dynamics 61, 569-578 (2010).
	44. **Sanling Yuan***, Weiguo Zhang, Maoan Han, Global asymptotic behavior in chemostat-type competition models with delay, Nonlinear Analysis: Real World Applications 10, 1305-1320 (2009).
	45. **Sanling Yuan*,** Dongmei Xiao, Maoan Han, Competition between plasmid-bearing and plasmid-free organisms in a chemostat with nutrient recycling and an inhibitor, Mathematical Biosciences 202, 1-28 (2006).
Academic Service	● Managing director of the Chinese Society for Mathematical Biology ● Reviewer for Mathematical Reviews