First Announcement of

"International Symposium on Application of Nonlinear Partial Differential Equations in Life Science"

August 4-7, 2015

Chern Institute of Mathematics, Nankai University, Tianjin, China

ABOUT THE SYMPOSIUM:

Topics: Modeling and analysis of nonlinear partial differential equations (especially reaction-diffusion type equations) in life sciences and other scientific disciplines. Focus on mathematical analysis and numerical simulations of nonlinear partial differential equations and other evolution equations arising from ecology, environmental science, cancer research, immunology, epidemics, and system biology. It will bring together researchers from around the world to communicate newest developments in dynamic behavior, pattern formation, steady state solutions, periodic solutions and traveling wave solutions of reaction-diffusion equations, chemotaxis systems and nonlocal evolution equations.

Purpose and Goals: Bring more public awareness to the mathematical models of many practical problems such as river pollution, biological invasion, global warming, epidemic spreading, fog haze pollution, biodiversity; promote research activities of reaction-diffusion type models in China. This conference will be a continuation of several previous events: (i) the 2005 Workshop on Spatial Ecology at the University of Miami; (ii) the Mathematical Biosciences Institute 2005-2006 Emphasis year on Evolution and Ecology (specifically Workshop 4: Spatial Ecology March 13-17, 2006); (iii) July 2011 Banff International Research Station workshop on Emerging Challenges at the Interface of Mathematics, Environmental Science and Spatial Ecology; (iv) October 2013 Beijing International Center for Mathematical Research International Workshop on "New Mathematical Developments Arising from Ecology, Epidemiology and Environmental Science". It will continue the effort of Chern Institute in the area of mathematical biology: 2014 International Conference on Modeling of Complex Biological Systems (May 26-29, 2014), and 2014 Mathematics and Informatics for Public Health conference (May 7-12, 2014). The purposed dates are right before the 2015 ICIAM Congress (Beijing, August 10-14, 2015) so many participants can attend both conferences. Tianjin and Beijing are only 120 km apart with frequent 30-minute trains.

Funding and Sponsors: There is no registration fee for official participants. Chern Institute of Mathematics will provide lodging and meals for all official participants and some other funding source may additional support.

Format: In the four-day meeting, we plan to have 24-28 invited talks (40 minute each), and 12-16 junior researcher talks (20 minute each) in a single session format. We expect to have more than 70 participants from around the world with about 30 coming from outside of China.

Organizing Committee:

Xing Liang (University of Science and Technology of China, China),

Chungen Liu (Nankai University, China),

Yuan Lou (Renmin University of China, China, and Ohio State University, USA),

Junping Shi (College of William and Mary, USA)

Scientific Committee:

Henri Berestycki (EHESS, France)

Avner Friedman (Ohio State University, USA)

Mark Lewis (University of Alberta, Canada)

Philip Maini (Oxford University, UK)

Hiroshi Matano (University of Tokyo, Japan)

Masayasu Mimura (Meiji University, Japan)

Wei-Ming Ni (East China Normal University, China and University of Minnesota, USA)

Zhiqiang Wang (Chern Institute of Mathematics, Nankai University, China and Utah State University, USA)

Website and Contact: website of conference upcoming

website of Chern Institute: http://www.nim.nankai.edu.cn/nim_e/

Contact: Junping Shi (jxshix@wm.edu)

About Chern Institute: Chern Institute of Mathematics (CIM) was founded in 1985 through the initiative of the late Professor Shiing-Shen Chern (who obtained his BS degree from Nankai University in 1930), and Chern was also the first director of the Institute until 1992. CIM is an open research institution. Its goal is to push forward the development of pure and applied mathematics, to promote the mathematical research in China, and to improve communication between mathematicians. The principle of CIM as proposed by Professor Chern is: based at Nankai, facing the whole country, and viewing the world. CIM has organized many academic activities on various subjects, and trained a large number of young mathematicians. Through these efforts, CIM has made important contribution to the development of mathematics in China and to the improvement of connections between Chinese and international mathematical community. CIM is supported by the Ministry of Education and the Ministry of Finance of China. It also receives support from R. R. Shaw, K. C Wong Education Foundation, Shiing-Shen Chern Foundation, Ministry of Science and Technology of China, National Natural Science Foundation of China, etc.