# Functional Equations Based upon Phenomena

Monday, November 6 – Friday, November 10, 2006 Room 115, Research Institute for Mathematical Sciences (RIMS) Kyoto University

Organizer: Yutaka Kamimura (Tokyo Univ. of Marine Sci. and Tech.)

### Program

### Monday, November 6

13:00 ~ 13:30	Shingo Iwami, Tadayuki Hara (Osaka Prefecture Univ.) Global property of invasive disease with n-virulence
13:30 ~ 14:00	Fumiyuki Kawahigashi, Hideaki Matsunaga (Osaka Prefecture Univ.) Asymptotic stability conditions for linear difference systems with two delays
14:15 ~ 14:45	Hidekazu Asakawa (Gifu Univ.) Existence of positive radial solutions for semilinear elliptic equations with harmonic term
14:45 ~ 15:15	Hiroyuki Usami (Hiroshima Univ.) Asymptotic forms of weakly increasing positive solutions of quasilinear ordinary differential equations
15:30 ~ 16:00	Minoru Nakano (Keio Univ.) On a 2nd order linear O.D.E. with a turning point and sigularity
16:00 ~ 16:30	Shinji Nakaoka (Shizuoka Univ.) Analysis of size-structured population dynamics

## Tuesday, November 7

10:00 ~ 10:30	Shigehide Iwata (Shizuoka Univ.) Plant species coexistence on the revised lottery model—The density dependence effect on the seed settlement rate	
10:30 ~ 11:00	Keita Ashizawa (Meijo Univ.), Rinko Miyazaki (Shizuoka Univ.) Spectrum and convergent speed for a type of delay differential system	
11:15 ~ 11:45	Chun-Gil Park (Hanyang Univ.) Isomorphisms and derivations in $C^*$ -algebras	
11:45 ~ 12:15	Jong Son Shin, Toshiki Naito (Univ. of Electro-Communications) A representation of solutions for periodic linear differential equations	
Lunch		
13:30 ~ 14:00	Masakazu Onitsuka, Jitsuro Sugie (Shimane Univ.) Global asymptotic stability for half-linear differential equations with bounded coefficients	
14:00 ~ 14:30	Kouhei Matsumura, Jitsuro Sugie (Shimane Univ.) Oscillation theorems for half-linear differential equations with divergent coefficients	
14:45 ~ 15:45	Hideki Nagashima (Tokyo Univ. of Marine Sci. and Tech.) [Special Lecture] Ocean physics based upon phenomena	
16:00 ~ 16:30	Masakatsu Suzuki, Hideaki Matsunaga, Tadayuki Hara (Osaka Prefecture Univ.) Stability criteria for linear differential systems with delay in off-diagonal terms	
16:30 ~ 17:00	Mami Suzuki (Aichi Gakusen Univ.) A functional equation which is reduced to nonlinear second order difference equations whose eigenvalues are 1	

## Wednesday, November 8

 10:30 ~ 11:00 Kazuyuki Matsui, Hideaki Matsunaga (Osaka Prefecture Univ.), Satoru Murakami (Okayama Univ. of Science) Perron type theorems for functional differential equations with infinite delay 11:15 ~ 12:00 Inbo Sim (Pusan National Univ.) Global bifurcation of sign-changing solutions for singular onedimensional p-Laplacian Lunch  $13:30 \sim 14:15$ Yong-Hoon Lee (Pusan National Univ.) Existence of multiple positive radial solutions for p-Laplacian problems in an exterior domain 14:30 ~ 15:30 Naoyuki Ishimura (Hitotsubashi Univ.) [Special Lecture] Mathematical finance and functional equations 15:45 ~ 16:15 Ryuji Kajikiya (Nagasaki Institute of Applied Science) Comparison theorem and a priori estimate of positive solutions for sublinear elliptic equations  $16:30 \sim 17:00$ Kiyoyuki Tchizawa (Musashi Institute Technology), Hideo Miki, Hisakazu Nishino (Keio Univ.) On 4-dim duck solution in a trading, dynamical, economic model

### Thursday, November 9

10:00 ~ 10:30	Tokushi Sato (Tohoku Univ.), Yuki Naito (Kobe Univ.) Positive solutions for semilinear elliptic equations with singular forcing terms
10:30 ~ 11:00	Satoshi Tanaka (Okayama Univ. of Science) On the uniqueness of nodal radial solutions of superlinear elliptic equations in a ball
11:15 ~ 11:45	Jito Vanualailai , Bibya Sharma (South Pacific Univ.) , Shin-ichi Nakagiri (Kobe Univ.)

Artificial potential fields with asymptotic stability properties

11:45 ~ 12:15 Bibya Sharma, Jito Vanualailai (South Pacific Univ.), Shin-ichi Nakagiri (Kobe Univ.) Posture control of tractor-traile systems: A Lyapunov approach.

#### Lunch

13:30 ~ 14:00 J. Ha (Korea Univ. of Tech. and Edu.), S. Gutman (Oklahoma Univ.) Parameter estimation problem for a damped Sine-Gordon equation 14:00 ~ 14:30 Shin-ichi Nakagiri (Kobe Univ.), J. Ha (Korea Univ. of Tech. and Edu.), Jito Vanualailai (South Pacific Univ.) Spatially-varying parameters identification problems for nonlinear strongly damped wave equations 14:45 ~ 15:15 Tomomitsu Teramoto (Onomichi Univ.) Existence of positive entire solutions of second order semilinear elliptic systems  $15:15 \sim 15:45$ Yasuhisa Saito (Shizuoka Univ.) Stability of chemostadt-type equations and biodiversity 16:00 ~ 16:30 Shigeru Haruki (Okayama Univ. of Science), Shin-ichi Nakagiri (Kobe Univ.) Functional equations characterizing quadratic functions and square measures

#### Friday, November 10

10:00 ~ 10:30	Seiji Saito, Hiroaki Ishii (Osaka Univ.)
	On eventually uniformly asymptotical stability to finite coverings
	of periodic points for difference equations
10:30 ~ 11:00	Xianning Liu (Southwest Univ.)
	Epidemic models with population dispersal
11:15 ~ 11:45	Yasuhiro Takeuchi (Shizuoka Univ.)
	Avian-Human influenza epidemic model