

Summer School on Variational Problems and Functional Inequalities (at OCAMI)

RIMS Research Project

organizers: Futoshi Takahashi (Osaka Metropolitan University) Michinori Ishiwata (Osaka University)

記

Date :	2022, September, 21, $9:50$ – September, 22, 17:30
Venue :	Science Building E 408
	Department of Mathematics, Osaka Metropolitan University
	3-3-138, Sugimoto-cho, Osaka-si, Osaka

21, September

- $9:50{\sim}10:00$ Opening
- 10:00~11:00 Bernhard Ruf (Universitá di Milano) Concentration on manifolds for solutions of polynomial elliptic equations on an annulus (I)
- 11:30~12:30 Luca Martinazzi (Universitá di Roma "La Sapienza") Variational methods for the Moser-Trudinger embedding (I)
- 14:00~14:45 Shoichi Hasegawa (Waseda University, PD) Separation structure of radial solutions to the Lane-Emden equation on non-compact Riemannian manifolds
- 15:00~15:45 Ikkei Shimizu (Osaka University, Researcher) Profile decomposition for the Schrödinger propagator on star graphs and its application to nonlinear problems
- 16:00~16:45 Nobuhito Miyake (The University of Tokyo, PD) Effect of decay rates of initial data on the sign of solutions to Cauchy problems of polyharmonic heat equations

 $16:45 \sim 17:30$ discussion

22, September

- 10:00~11:00 Bernhard Ruf (Universitä di Milano) Concentration on manifolds for solutions of polynomial elliptic equations on an annulus (II)
- 11:30~12:30 Luca Martinazzi (Universitá di Roma "La Sapienza") Variational methods for the Moser-Trudinger embedding (II)
- 14:00~14:45 Takeshi Suguro (RIMS, Project Fellow) Shannon's inequality for a generalized entropy and its application
- 15:00~15:45 Haoyu Li (Osaka University, Researcher) Nodal Solutions to Coupled Schrödinger Systems
- 16:00~16:45 Naoki Hamamoto (Osaka Metropolitan University, PD) Best constants in some CKN type inequalities for test vector fields restricted by differential constraint

 $16:45 \sim 17:30$ discussion