

# The 15th Northeastern Symposium on Mathematical Analysis

Date : 2012-2-17 (Mon.) ~ 2012-2-18 (Tue.)

Venue : Room 5-201, Faculty of Science Building #5,  
Hokkaido University, Sapporo, Japan

Organizer : Hideo Takaoka (Hokkaido University)

Yasunori Maekawa (Tohoku University)

Tadahiro Miyao (Hokkaido University)

[http://www.math.sci.hokudai.ac.jp/sympo/nema/15\\_en.html](http://www.math.sci.hokudai.ac.jp/sympo/nema/15_en.html)

## 2012 - 2-17 (Mon.)

09:55--10:00 Opening

10:00--10:50 Hiroaki Aikawa (Hokkaido University)  
Estimates of the principal frequency and Dirichlet heat kernel on a nonsmooth domain

11:00--11:50 Zihua Guo (Peking University)  
Fourier restriction estimate and its applications in PDEs

13:10--14:00 Masaki Kurokiba (Muroran Institute of Technology)

Existence and blowing up for a system of the drift-diffusion equation

14:10--14:40 Hidemitsu Wadade (Gifu University)  
Optimal embeddings on critical Sobolev-Lorentz-Zygmund spaces

14:50--15:20 Ryo Takada (Tohoku University)  
The 3D rotating Euler equations with the critical Sobolev regularity

15:30--16:00 Keisuke Takasao (Hokkaido University)  
The existence of weak solution for mean curvature flow with external force term

16:20--17:45 Poster Session

18:00--19:45 Reception

## 2012 - 2-18 (Tue.)

10:00--10:50 Shinya Okabe (Tohoku University)  
Convergence to equilibrium of gradient flows defined on planar curves

11:00--11:50 Yung-fu Fang (National Cheng Kung University)  
Well-posedness for quantum Zakharov system in 1D

13:10--13:40 Yuki Kurokawa (Hokkaido University of Education)

Lifespan of solutions to systems of semilinear wave equations with different speeds

13:50--14:20 Masahiro Ikeda (Tohoku University)  
Null structure and well-posedness for a quadratic derivative NLS system

14:30--14:50 Kota Uriya (Tohoku University)  
Final state problem for a quadratic nonlinear Schrödinger system in two dimensions with mass resonance

14:55--15:15 Kouta Usui (Hokkaido University)  
Construction of dynamics and time-ordered exponential for unbounded non-symmetric Hamiltonians

15:25--15:45 Lami Kim (Hokkaido University)  
 $\alpha$ -Gauss curvature flows

15:50--16:10 Hiroko Yamamoto (Tohoku University)  
Effects of spatial heterogeneity on the location of concentration points in solutions of a semilinear Neumann problem

16:10--16:15 Closing

Please visit the website for updated information on the symposium.

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