

# Functional Analysis

March 15th (Sat) Conference Room II

## 9:30–11:50

- 07-01-0013  
1 Kazuo Takemura (Nihon Univ.)\* The best constants of discrete Sobolev inequalities on the finite  $d$ -regular weighted graph ..... 10
- 07-01-0030  
2 Akito Suzuki (Shinshu Univ.)\* Spectra of graphs obtained from the  $d$ -dimensional lattice by periodically adding pendant vertices ..... 15
- 07-01-0008  
3 Hiroyuki Yamagishi (産業技術高専)#  
Kohtaro Watanabe  
(Nat. Defense Acad. of Japan)  
Yoshinori Kametaka (Osaka Univ.\*) The best constant of  $L^p$  Sobolev inequality corresponding to Dirichlet–Neumann boundary value problem ..... 10
- 07-01-0009  
4 Hiroyuki Yamagishi (産業技術高専)#  
Atsushi Nagai (Nihon Univ.)  
Yoshinori Kametaka (Osaka Univ.\*) The best constant of discrete Sobolev inequality corresponding to a bending problem of a string ..... 10
- 07-01-0025  
5 Toshimitsu Takaesu (Gunma Univ.)# On the existence of ground state of massless  $\phi^4$  model with cutoffs for all values of coupling constants ..... 15
- 07-01-0026  
6 Toshimitsu Takaesu (Gunma Univ.)# On the existence of ground state of relativistic quantum electrodynamics with cutoffs for all values of coupling constants ..... 15
- 07-01-0028  
7 Takuya Mine (Kyoto Inst. Tech.)# Computation of the scattering amplitude in the elliptic coordinate ... 15
- 07-01-0003  
8 Atsuhide Ishida (追手門学院大経済)# On inverse problem for the Schrödinger equation with a repulsive potential ..... 15
- 07-01-0038  
9 Kohei Umeta (Hokkaido Univ.)#  
Naofumi Honda (Hokkaido Univ.) The global sections of the sheaf of Laplace hyperfunctions and Laplace transforms ..... 15

## 14:15–15:15 Talk invited by Functional Analysis Section

- 07-02-0002  
Kenichi Ito (Univ. of Tsukuba)# Classification of threshold properties of one-dimensional discrete Schrödinger operators

March 16th (Sun) Conference Room II

## 10:00–11:50

- 07-01-0017  
10 Kazufumi Kimoto (Univ. of Ryukyus)# Two-parameter deformation of the determinant and formulas for rectangular characters ..... 15
- 07-01-0032  
11 Masaki Mori (Univ. of Tokyo)# Cellular structure on the Hecke–Clifford superalgebra and construction of its irreducible representations ..... 15
- 07-01-0039  
12 Akihito Wachi (Hokkaido Univ. of Edu.)# The strong Lefschetz property of the coinvariant algebras of complex reflection groups ..... 15
- 07-01-0029  
13 Yuichiro Tanaka (Univ. of Tokyo)# Geometry of multiplicity-free representations of  $SO(N)$  and visible actions ..... 15
- 07-01-0031  
14 Toshihisa Kubo (Univ. of Tokyo)# The Dynkin index and parabolic subalgebras of Heisenberg type ..... 15
- 07-01-0040  
15 Koichi Kaizuka (Univ. of Tsukuba)# Scattering theory for the Laplacian on symmetric spaces of noncompact type ..... 15

**13:15–14:15 Talk invited by Functional Analysis Section**

07-02-0003

Kazuki Hiroe (Josai Univ.)# Additive Deligne–Simpson problem and root systems

March 17th (Mon) Conference Room II

**9:30–12:00**

07-01-0036

16 Satoshi Goto (Sophia Univ.)# Computation of flat parts of inter-Dynkin connections ..... 15

07-01-0005

17 Hiroshi Ando (Univ. of Copenhagen)# Ultraproducts, QWEP von Neumann algebras and the Effros–Maréchal topology ..... 15  
Uffe Haagerup (Univ. Copenhagen)  
Carl Winsløw (Univ. Copenhagen)

07-01-0016

18 Koichi Shimada (Univ. of Tokyo)# Actions of locally compact abelian groups with the Rohlin property on factors ..... 15

07-01-0010

19 Rui Okayasu (Osaka Kyoiku Univ.)# Haagerup approximation property for arbitrary von Neumann algebras ..... 15

07-01-0015

20 Hisashi Aoi (Ritsumeikan Univ.)# Schlichting completion of Hecke pairs ..... 15  
Takehiko Yamanouchi (東京学大自然)

07-01-0037

21 Masato Mimura (Tohoku Univ.)\* Group approximation in Cayley topology and coarse geometry, Part II: fibered coarse embedding ..... 15  
Hiroki Sako (Tokai Univ.)

07-01-0012

22 Norio Nawata (Chiba Univ.)# Finite group actions on certain stably projectionless  $C^*$ -algebras with the Rohlin property ..... 15

07-01-0019

23 Takahiro Sudo (Univ. of Ryukyus)# The Euler characteristic and the Euler–Poincaré formula for  $C^*$ -algebras ..... 15**14:15–15:00**

07-01-0020

24 Tsuyoshi Kajiwara (Okayama Univ.)# Matrix representations and  $K$ -groups of the cores of  $C^*$ -algebras associated with self-similar maps ..... 15  
Yasuo Watatani (Kyushu Univ.)

07-01-0034

25 Hiroyasu Hamada (Kyushu Univ.)#  $C^*$ -algebras generated by composition operators induced by rational functions ..... 15

07-01-0011

26 Kei Ji Izuchi (Niigata Univ.)\* Path connected components in the space of weighted composition operators on the disk algebra ..... 15  
Yuko Izuchi  
Shūichi Ohno (Nippon Inst. of Tech.)**15:15–16:15 Award Lecture for 2013 Analysis Prize**

07-02-0001

Yasuo Watatani (Kyushu Univ.)# Singularities in operator algebras

**16:30–17:30 Talk invited by Functional Analysis Section**

07-02-0004

Sei-Ichiro Ueki (Ibaraki Univ.)# Composition and Integral operators on Bargmann–Fock spaces

March 18th (Tue) Conference Room II

**10:00–11:40**

07-01-0002

27 Wataru Ichinose (Shinshu Univ.)# On the uniqueness of the polar decomposition of bounded operators in Hilbert spaces ..... 15  
Kanao Iwashita (Shinshu Univ.)

07-01-0018

28 Yuki Seo (Osaka Kyoiku Univ.)# Buzano inequality in inner product  $C^*$ -modules via the operator geometric mean ..... 10

<a href="#">07-01-0006</a>			
29	Junichi Fujii (Osaka Kyoiku Univ.) <sup>#</sup>	Reproducing property of interpolational operator means in a Karcher equation	15
<a href="#">07-01-0014</a>			
30	Hiroyuki Osaka (Ritsumeikan Univ.) <sup>#</sup> Dinh Trung Hoa (Duy Tan Univ.) Toan M. Ho (Mathematical Inst. , Hanoi)	Interpolation classes and matrix means	15
<a href="#">07-01-0021</a>			
31	Masaru Nagisa (Chiba Univ.) <sup>#</sup> Haruka Watanabe (Chiba Univ.)	Order of operators determined by derivatives	10
<a href="#">07-01-0035</a>			
32	Masaru Nagisa (Chiba Univ.) <sup>#</sup> Shuhei Wada (長岡技術科学大電気)	Operator monotonicity of Szabó's function	10
<b>14:15–15:15</b>			
<a href="#">07-01-0024</a>			
33	Takeaki Yamazaki (Toyo Univ.) <sup>#</sup>	Generalized Ando–Hiai inequality for matrix power mean	10
<a href="#">07-01-0027</a>			
34	Hiroshi Isa (Maebashi Inst. of Tech.) <sup>#</sup> Masatoshi Ito (Maebashi Inst. of Tech.) Eizaburo Kamei Hiroaki Tohyama (Maebashi Inst. of Tech.) Masayuki Watanabe (Maebashi Inst. of Tech.)	On relations between operator valued $\alpha$ -divergence and relative operator entropies	15
<a href="#">07-01-0004</a>			
35	Shigeru Furuichi (Nihon Univ.) <sup>#</sup>	Unitarily invariant norm inequalities for some means	15
<a href="#">07-01-0007</a>			
36	Kenjiro Yanagi (Yamaguchi Univ.) <sup>#</sup>	Non-hermitian extension of generalized skew information and uncertainty relation	15