Proceedings of the 44th Symposium on Ring Theory and Representation Theory

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Nagoya University

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The Symposium on Ring Theory and Representation Theory has been held annually in Japan and the Proceedings have been published by the organizing committee. The first Symposium was organized in 1968 by H.Tominaga, H.Tachikawa, M.Harada and S.Endo. After their retirement, a new committee was organized in 1997 for managing the Symposium and committee members are listed in the web page http://fuji.cec.yamanashi.ac.jp/~ring/h-of-ringsymp.html.

The present members of the committee are H.Asashiba (Shizuoka Univ.), S.Ikehata (Okayama Univ.), S.Kawata (Osaka City Univ.), M.Sato (Yamanashi Univ.) and K.Yamagata (Tokyo Univ. of Agriculture and Technology).

The Proceedings of each Symposium is edited by program organizer. Anyone who wants these Proceedings should ask to the program organizer of each Symposium or one of the committee members.

The Symposium in 2012 will be held at Shinshu University for Sep. 7(Fri.)–9(Sun.) and the program will be arranged by K.Koike (Okinawa National College of Tech.).

Concerning several information on ring theory and representation theory of group and algebras containing schedules of meetings and symposiums as well as ring mailing list service for registered members, you should refer to the following ring homepage, which is arranged by M.Sato (Yamanashi Univ.):

http://fuji.cec.yamanashi.ac.jp/~ring/ (in Japanese)
(Mirror site: www.cec.yamanashi.ac.jp/~ring/)

http://fuji.cec.yamanashi.ac.jp/~ring/japan/ (in English)

Masahisa Sato
Yamanashi Japan
December, 2011
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Preface

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Masahisa Sato
Yamanashi
December, 2011
第44回 環論および表現論シンポジウム
プログラム

9月25日（日）
8:40–9:30 Dan Zacharia (Syracuse University)
On modules of finite complexity over selfinjective algebras I

9:40–10:30 Dong Yang
On derived simple algebras

10:50–11:40 斉藤義久（東京大学）
前射影多元環と量子群の結晶基底 I

13:00–13:40
21教室 阿部 弘樹（筑波大学）
Tilting modules arising from two-term tilting complexes

24教室 Erik Darpö（名古屋大学）
The representation rings of the dihedral 2-groups

13:50–14:30
21教室 水野 有哉（名古屋大学）
APR tilting modules and quiver mutations

21教室 小原 大樹（東京理科大学）
Hochschild cohomology of quiver algebras defined by two cycles and a quantum-like relation

14:50–15:30
21教室 Joseph Grant（名古屋大学）
Derived autoequivalences and braid relations

24教室 古谷 貴彦・速水 孝夫（東京理科大学・北海学園大学）
Hochschild cohomology of cluster-tilted algebras of types $A_n$ and $D_n$

15:40–16:20
21教室 Martin Herschend（名古屋大学）
n-representation infinite algebras

21教室 吉澤 毅（岡山大学）
Subcategories of extension modules related to Serre subcategories

16:40–17:30 吉野 雄二（岡山大学）
Cohen-Macaulay 加群の表現およびその退化への入門 I

17:40–18:30 Jay A. Wood (Western Michigan University)
Applications of finite Frobenius rings to algebraic coding theory I
9月26日（月）
8:40–9:30 Dan Zacharia (Syracuse University)
On modules of finite complexity over selfinjective algebras II
9:40–10:30 Dong Yang
Recollements generated by idempotents
10:50–11:40 斉藤 義久（東京大学）
前縮影多元環と量子群の結晶基底 II
13:00–13:40
21教室 竹花 靖彦（函館工業高専）
A generalization of costable torsion theory
24教室 源 泰幸（京都大学）
A note on dimension of triangulated categories
13:50–14:30
21教室 木村 真弓・浅芝 秀人（静岡大学）
Quiver presentations of Grothendieck constructions
24教室 相原 琢磨・高橋 亮（千葉大学・信州大学）
Dimensions of derived categories
14:50–15:30
21教室 上山 健太（静岡大学）
Graded Frobenius algebras and quantum Beilinson algebras
24教室 古賀 寛尚・星野 光男（筑波大学）
Weak Gorenstein dimension for modules and Gorenstein algebras
16:40–17:30 吉野 雄二（岡山大学）
Cohen-Macaulay 加群の表現およびその退化への入門 II
17:40–18:30 Jay A. Wood (Western Michigan University)
Applications of finite Frobenius rings to algebraic coding theory II
19:00－懇親会
9月27日（火）
8:40–9:30 高橋 髙史（大阪大学）
Matrix Factorizations, Orbifold Curves And Mirror Symmetry

9:40–10:30 宮地 兵衛（名古屋大学）
Hidden Hecke Algebras and Koszul Duality

10:50–11:30
21 教室 山浦 浩太（名古屋大学）
Tilting theory for stable graded module categories over graded self-injective algebras

24 教室 中島 規博（北海道大学）
The Noetherian properties of the rings of differential operators on central 2-arrangements

12:50–13:30
21 教室 長瀬 潤・名倉 誠（東京学芸大学・奈良高専）
Hom-orthogonal partial tilting modules for Dynkin quivers

24 教室 岡崎 亮太・柳川 浩二（大阪大学・関西大学）
Alternative polarizations of Borel fixed ideals and Eliahou-Kervaire type resolution

13:40–14:20
21 教室 Laurent Demonet（名古屋大学）
Categorification of cluster algebra structures of coordinate rings of simple Lie groups

24 教室 松田 一徳（名古屋大学）
Weakly closed graph

14:40–15:20
21 教室 木村 嘉之（京都大学）
Quantum unipotent subgroup and dual canonical basis

24 教室 大関 一秀（明治大学）
Sharp bounds for Hilbert coefficients of parameters

15:30–16:20 本瀬 香
The Example by Stephens
The 44th Symposium On Ring Theory and Representation Theory (2011)

Program

Sunday September 25
8:40–9:30 Dan Zacharia (Syracuse University)
   On modules of finite complexity over selfinjective algebras I
9:40–10:30 Dong Yang
   On derived simple algebras
10:50–11:40 Yoshihisa Saito (University of Tokyo)
   Preprojective algebras and crystal bases of quantum groups I
13:00–13:40 Room 21 Hiroki Abe (University of Tsukuba)
   Tilting modules arising from two-term tilting complexes
   Room 24 Erik Darpö (Nagoya University)
   The representation rings of the dihedral 2-groups
13:50–14:30 Room 21 Yuya Mizuno (Nagoya University)
   APR tilting modules and quiver mutations
   Room 24 Daiki Obara (Tokyo University of Science)
   Hochschild cohomology of quiver algebras defined by two cycles and
   a quantum-like relation
14:50–15:30 Room 21 Joseph Grant (Nagoya University)
   Derived autoequivalences and braid relations
   Room 24 Takahiko Furuya, Takao Hayami (Tokyo University of Science,
   Hokkai-Gakuen University)
   Hochschild cohomology of cluster-tilted algebras of types $A_n$ and $D_n$
15:40–16:20 Room 21 Martin Herschend (Nagoya University)
   $n$-representation infinite algebras
   Room 24 Takeshi Yoshizawa (Okayama University)
   Subcategories of extension modules related to Serre subcategories
16:40–17:30 Yuji Yoshino (Okayama University)
   Introduction to representations of Cohen-Macaulay modules and their
degenerations I
17:40–18:30 Jay A. Wood (Western Michigan University)
   Applications of finite Frobenius rings to algebraic coding theory I
Monday September 26
8:40–9:30 Dan Zacharia (Syracuse University)
   On modules of finite complexity over selfinjective algebras II
9:40–10:30 Dong Yang
   Recollements generated by idempotents
10:50–11:40 Yoshihisa Saito (University of Tokyo)
   Preprojective algebras and crystal bases of quantum groups II

13:00–13:40
   Room 21 Yasuhiro Takehana (Hakodate National College of Technology)
      A generalization of costable torsion theory
   Room 24 Hiroyuki Minamoto (Kyoto University)
      A note on dimension of triangulated categories

13:50–14:30
   Room 21 Mayumi Kimura, Hideto Asahiba (Shizuoka University)
      Quiver presentations of Grothendieck constructions
   Room 24 Takuma Aihara, Ryo Takahashi (Chiba University, Shinshu University)
      Dimensions of derived categories

14:50–15:30
   Room 21 Kenta Ueyama (Shizuoka University)
      Graded Frobenius algebras and quantum Beilinson algebras
   Room 24 Hirotaka Koga, Mitsuo Hoshino (University of Tsukuba)
      Weak Gorenstein dimension for modules and Gorenstein algebras

16:40–17:30 Yuji Yoshino (Okayama University)
   Introduction to reprentations of Cohen-Macaulay modules and their degenerations II

19:00– Conference dinner
Tuesday September 27
8:40–9:30 Atsushi Takahashi (Osaka University)  
Matrix Factorizations, Orbifold Curves and Mirror Symmetry
9:40–10:30 Hyohe Miyachi (Nagoya University)  
Hidden Hecke Algebras and Koszul Duality
10:50–11:30  
Room 21 Kota Yamaura (Nagoya University)  
Tilting theory for stable graded module categories over graded self-injective algebras
Room 24 Nakashima Norihiro (Hokkaido University)  
The Noetherian properties of the rings of differential operators on central 2-arrangements
12:50–13:30  
Room 21 Hiroshi Nagase, Nagura, Makoto (Tokyo Gakugei University, Nara National College of Technology)  
Hom-orthogonal partial tilting modules for Dynkin quivers
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