Proceedings of the 42nd Symposium
on Ring Theory and Representation Theory

October 10 (Sat.) - 12 (Mon.), 2009
Osaka Kyoiku University, Japan

Edited by
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Osaka City University

January, 2010
Osaka, JAPAN

第 42 回 環論および表現論シンポジウム報告集

２００９年１０月１０日（土）－１２日（月）
大阪教育大学

編集: 河田成人 (大阪市立大学)

２０１０年１月
大阪市立大学

Organizing Committee of The Symposium on Ring Theory and Representation Theory

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. The present members of the committee are H. Asashiba (Shizuoka Univ.), S. Ikehata (Okayama Univ.), S. Koshitani (Chiba Univ.), M. Sato (Yamanashi Univ.) and K. Yamagata (Tokyo Noukou Univ.).

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 2010 will be held at Naruto Kyoiku University for Sep. 10(Fri.)-12(Sun.), and the program will be arranged by H. Komatsu (Okayama Pref. Univ.).

Concerning several information on ring theory group in Japan containing schedules of meetings and symposiums as well as the addresses of members in the group, you should refer the following homepage, which is arranged by M. Sato (Yamanashi Univ.):

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

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

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Masahisa Sato
Yamanashi Japan
December, 2009

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PREFACE

The 42nd Symposium on Ring Theory and Representation Theory was held at Osaka Kyoiku University on October 10th - 12th, 2009. The symposium and the proceedings are financially supported by Kunio Yamagata (Tokyo University of Agriculture and Technology) JSPS Grant-in-Aid for 2009 Scientific Research (B), No. 21340003.

This volume consisits of the articles presented at the symposium. We would like to thank all speakers and coauthors for their contributions.

We would also like to express our thanks to all the members of the orgnizing commitee (Professors Hideto Asashiba, Shûichi Ikehata, Shigeo Koshitani, Masahisa Sato and Kunio Yamagata) for their helpful suggestions concerning the symposium. Finally we would like to express our gratitude to Professor Yoshitomo Baba and students of Osaka Kyoiku University who contributed in the organization of the symposium.

Shigeto Kawata
Osaka, Japan
January, 2010

第42回 環論および表現論シンポジウム
プログラム

１０月１０日（土曜日）

09：00 − 09：45 　池畑 秀一（岡山大学）
George Szeto (Bradley University)
Lianyong Xue (Bradley University)

　On Galois Extensions with an Inner Galois Group and a Galois Commutator Subring

10：00 − 10：45 　Edward Poon（Embry-Riddle University）
Hisaya Tsutsui (Embry-Riddle University)
平野 康之（鳴門教育大学）

　Fully Weakly Prime Rings

11：00 − 12：00 　Fred Van Oystaeyen (Antwerp University)

　Crystalline graded rings

13：30 − 14：15 　大関 一秀（明治大学）
後藤 四郎（明治大学）
西田 康二（千葉大学）

　On the structure of Sally modules of rank one

14：30 − 15：15 　早坂 太（明治大学）

　The Buchsbaum-Rim function of a parameter module

15：30 − 16：15 　亀山 統胤（信州大学）

　Extension of the Matlis duality to a filtered Noetherian ring

16：30 − 17：15 　柳川 浩二（関西大学）

　Dualizing complex of the Stanley ring associated with a simplicial poset

１０月１１日（日曜日）

09：00 − 09：45 　高橋 亮（信州大学）

　Thick subcategories of the stable category of Cohen-Macaulay modules

10：00 − 10：45 　源 泰幸（京都大学）

　Ampleness of two-sided tilting complexes and Fano algebras

11：00 − 12：00 　Fred Van Oystaeyen (Antwerp University)

　The projective scheme of the blow-up ring

13：30 － 14：15 阿部 弘樹（筑波大学）
星野 光男（筑波大学）

Derived equivalences for endomorphism rings

14：30 － 15：15 山浦 浩太（名古屋大学）

The classification of tilting modules over Harada algebras

15：30 － 16：15 本瀬 香（弘前市）

The Stickelberger relation and Loewy series of group algebras $\mathrm{Map}(\mathbb{F}_q, \mathbb{F}_q)$

16：30 － 17：30 Changchang Xi (Beijing Normal University)

Homological conjectures and radical-full extensions, I

１０月１２日（月曜日）

09：00 － 09：45 久田見 守（山口大学）

Almost comparability and related comparabilities in von Neumann regular rings

10：00 － 10：45 Martin Herschend（名古屋大学）

The Clebsch-Gordan problem for quiver representations

11：00 － 12：00 Changchang Xi (Beijing Normal University)

Homological conjectures and radical-full extensions, II

The 42nd Symposium on Ring Theory and Representation Theory

Program

October 10（Saturday）

09:00 － 09:45   Shuichi Ikehata (Okayama University)
George Szeto (Bradley University)
Lianyong Xue (Bradley University)
On Galois Extensions with an Inner Galois Group and a Galois Commutator Subring

10:00 － 10:45   Edward Poon（Embry-Riddle University）
Hisaya Tsutsui (Embry-Riddle University)
Yasuyuki Hirano (Naruto Kyoiku University)
Fully Weakly Prime Rings

11:00 － 12:00   Fred Van Oystaeyen (Antwerp University)
Crystalline graded rings

13:30 － 14:15   Kazuho Ozeki (Meiji Institute for Advanced Study of Mathematical Sciences)
Shiro Goto (Meiji University)
Koji Nishida (Chiba University)
On the structure of Sally modules of rank one

14:30 － 15:15   Futoshi Hayasaka (Meiji University)
The Buchsbaum-Rim function of a parameter module

15:30 － 16:15   Noritsugu Kameyama (Shinshu University)
Extension of the Matlis duality to a filtered Noetherian ring

16:30 － 17:15   Kohji Yanagawa (Kansai University)
Dualizing complex of the Stanley ring associated with a simplicial poset

October 11 (Sunday)

09:00 － 09:45   Ryo Takahashi (Shinshu University)
Thick subcategories of the stable category of Cohen-Macaulay modules

10:00 － 10:45   Hiroyuki Minamoto (Kyoto University)
Ampleness of two-sided tilting complexes and Fano algebras

11:00 － 12:00   Fred Van Oystaeyen (Antwerp University)
The projective scheme of the blow-up ring

13:30 ─ 14:15   Hiroki Abe (University of Tsukuba)
                    Mitsuo Hoshino (University of Tsukuba)
  Derived equivalences for endomorphism rings

14:30 ─ 15:15   Kota Yamaura (Nagoya University)
  The classification of tilting modules over Harada algebras

15:30 ─ 16:15   Kaoru Motose (Hirosaki)
  The Stickelberger relation and Loewy series of group algebras $\mathrm{Map}(\mathbb{F}_q, \mathbb{F}_q)$

16:30 ─ 17:30   Changchang Xi (Beijing Normal University)
  Homological conjectures and radical-full extensions, I

October 12 (Monday)

09:00 ─ 09:45   Mamoru Kutami (Yamaguchi University)
  Almost comparability and related comparabilities in von Neumann regular rings

10:00 ─ 10:45   Martin Herschend (Nagoya University)
  The Clebsch-Gordan problem for quiver representations

11:00 ─ 12:00   Changchang Xi (Beijing Normal University)
  Homological conjectures and radical-full extensions, II