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The international conference on radicals ICOR-2006

SURVEY ARTICLE

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It is difficult to overestimate the meaning of modern algebra in mathematics and in science on the whole. It is generally accepted that modern algebra is a widespread field of mathematics. That is why it is necessary for the specialists in different branches of algebra to come together from time to time and refresh their knowledge in other branches, and to enrich their research with new exciting methods. Such simple idea assembles together algebraists from different countries all over the world within the traditional International Conference on Radicals (ICOR). It is pleasing to note the tendency of extension of the conference geography and the growth of the number of participants, and the number of young researchers and scientists among them.

The regular International Conference on Radicals (ICOR-2006) was held from July 30 till August 5, 2006, in Kyiv, Ukraine. The conference was organized by Kyiv National Taras Shevchenko University and Institute of Mathematics of the National Academy of Sciences of Ukraine. About 60 algebraists participated in conference, and, in particular, more than 30 participants represented 12 foreign countries such as Australia, Austria, Brazil, England, Germany, Hungary, India, Moldova, Poland, Russia, South Africa and Sultanate of Oman.

The Program Committee was formed by well-known mathematiciansalgebraists whose research lay within scientific directions of the conference: V. V. Kirichenko, Chairman (Kyiv, Ukraine), V. I. Arnautov (Chişinău, Moldova), L. A. Bokut (Novosibirsk, Russia), Yu. A. Drozd (Kyiv, Ukraine), M. Ferrero (Porto Alegre, Brazil), B. Gardner (Hobart, Australia), A. I. Kashu (Chişinău, Moldova), M. Ya. Komarnitsky (Lviv, Ukraine), J. Krempa (Warszawa, Poland), L. Marki (Budapest, Hungary), A. V. Mikhalev (Moscow, Russia), R. Mlitz (Wien, Austria), A. P. Petravchuk (Kyiv, Ukraine), E. Puczylowski (Warszawa, Poland), Yu. M. Ryabukhin (Chişinău, Moldova), A. M. Samoilenko (Kyiv, Ukraine), L. A. Shemetkov (Gomel, Byelorussia), V. V. Sharko (Kyiv, Ukraine), S. Veldsman (Al-Khodh, Sultanate of Oman).

The conference included plenary talks (45 minutes), section talks and short communications (up to 20 minutes). English was the working language of the conference. The first two scientific talks "Universal aspects of category theory from a categorical viewpoint" and "On radicals of associative rings" were presented by Professor L. Marki (Budapest, Hungary) and Professor E. Puczyłowsky (Warszawa, Poland) respectively, and evoked a great interest and attention of the audience.



During the afternoon session of the first working day of the conference Professor A. I. Kashu (Chişinău, Moldova), Professor S. Veldsman (Al-Khodh, Sultanate of Oman) and Professor Jan Krempa (Warszawa, Poland) gave plenary talks "On the relation between the lattices of closed and of natural classes of modules", "The radicals of matrix and morita rings revisited" and "On radicals defined by uniform modules" respectively. The Chairmen of the morning and afternoon sessions were Professor V. V. Kirichenko (Kyiv, Ukraine) and Professor L. Marki (Budapest, Hungary).

In the next days of the conference the well-known algebraists gave the following plenary talks.

August 1: Professor B. Gardner (Hobart, Australia) "Radicalizers", Professor I. Sviridova (Ulyanovsk, Russia) "On Amitsur's Capelli-type polynomial codimensions", Professor L. Godloza (Mthatha, South Africa) "On primitivity and other properties of zero square near-rings", Professor V. M. Bondarenko (Kyiv, Ukraine) "On a matrix problem over the radical of algebras", Professor M. V. Zaicev (Moscow, Russia) "Growth functions of identities of nonassociative algebras", Professor V. Arnautov (Chişinău, Moldova) "Quotient rings of the ring equipped with additional structures", Professor S. Bhavanari (Nagarjuna Nagar, India) "On Prime radical in Gamma Nearrings", Professor V. N. Zhuravlev (Kyiv, Ukraine) "Exponent matrices of Gorenstein tiled orders".

August 3: Professor W. Rump (Stuttgart, Germany) "Radical rings, quantum groups and theory of the unknot", Professor V. Sharko (Kyiv, Ukraine) "Skew Laurent series rings and their applications", Professor N. Groenewald (Port Elizabeth, South Africa) "Different nilradicals in near-rings", Professor V. Andriychuk (Lviv, Ukraine) "On connected algebraic groups", Professor R. Wiegandt (Budapest, Hungary) "On the f-prime radical of nearrings", Professor Babushri Srinivas Kedukodi (Manipal, India) "Radicals of Fuzzy Ideals based on Equiprime and 3-Prime Fuzzy Ideals of Nearrings", Professor A. P. Petravchuk (Kyiv, Ukraine) and Professor O. G. Iena (Kyiv, Ukraine) "On centralizers of elements in the Lie algebra $P_2(K)$ ".

August 4: Professor M. Dokuchaev (São Paulo, Brazil) "On Engel groups of units in serial rings", Professor Ivan V. Arzhantsev (Moscow, Russia) "The unipotent radical in algebraic group theory and invariant theory", Professor R. Mlitz (Wien, Austria) "Extensions of radicals to larger universal classes", Professor G. L. Booth (Port Elizabeth, South Africa) "Atoms in lattices of matric-extensible radicals", Professor S. Ovsienko (Kyiv, Ukraine) "Invariant differential operators and Gelfand-Kirillov conjecture".

All plenary talks provoked wide discussions.

On the final session on the August, 5 open problems in the theory of radicals were discussed and the ceremony of closing of the conference was carried out.

On the third day of the conference the bus excursions on historical places of Kyiv were organized. Participants visited the St. Volodymyr's Cathedral, St. Andriy's church and Andriivskiy uzviz, St. Sophia Cathedral and St. Mychaylo's Golden Domed Cathedral, Kyyevo-Pecherska Lavra Monastery. During the city tours the guide has provided a lot of interesting background information on the city's rich history and its present.

The conference became a considerable event in the mathematical life in Ukraine. It allowed to establish closer scientific contacts between mathematicians from different countries, and assisted to an exchange of experience and knowledge with the purpose of support of high level of research in the area of mathematics in our country.

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