

Emil Artin International Conference Yerevan, Armenia, 27.05.2018-02.06.2018

Report for COINS Research School
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”Emil Artin International Conference” took place in Yerevan, Armenia on 27th of May 2018 to 2nd of June 2018. The conference was dedicated to the 120th anniversary of US mathematician with armenian roots - Emil Artin. There was around 100 participants, around 80 of which was from abroad: Russia, Norway, USA, South African, European Union and so on. The conference held in Yerevan State University. It covered almost all areas of mathematics and it’s applications:

- Classical and non classical Algebraic Structures,
- Algebra and Logic,
- Number theory,

- Geometry and Topology, Analysis and Equations,
- Boolean and DeMorgan functions, Cryptography and Discrete mathematics, applied mathematics,
- Lattices, Universal algebra, Computer Science and IT,
- Artin L functions, Dynamical systems.
- Quantum information theory, quantum Logic and Quantum Computation, Quantum groups and quantum Quasigroups.

The participants were very famous and valuable researchers from different fields of mathematics.

One of the most interesting talks (and of course it was a very interesting meeting) was given by Efim Zelmanov from the University of California, San Diego. He is Fields medal winner. The topic of his talk is "Groups satisfying polynomial identities". He introduced pro-nilpotent groups and pro- p groups with some identity.

The other interesting meeting was with prof. Hanamantagouda Sankaranarayanan from the State University of New York, USA. He is a co-author of a very famous and widely used handbook on Universal Algebra: "A course in Universal algebra". This meeting was really amazing, since I studied lattice theory with this book and then I used this book for my research. It was like a meeting with an idol, I was really happy! His talk was quite interesting, the title is "Implication zroupoids: an abstraction from DeMorgan algebras." He introduced a new equational class of algebras called implication zroupoids. Elements of implication zroupoids are algebras with implication and a constant, satisfying 2 identities. He proved that the variety of implication zroupoids contains the variety of DeMorgan algebras and also the variety of \vee -semilattices with the least element 0.

Also I want to mention the talk of Aleksey Parshin from Steklov mathematical institute of RAS. He has talked about reciprocity laws and zeta-functions. That talk has an immediate relation with Emil Artin's heritage in mathematics. Emil Artin has made two fundamental contributions to algebraic number theory. He proved his version of the reciprocity law and introduced L -functions for non-abelian representations of Galois groups of algebraic number fields. In his talk, prof. Parshin gave an overview of these results and he shows how the Langlands program developed from mentioned Artin's results.

I want to express my appreciation to COINS for giving me such a great opportunity of participating in this conference, to meet many interesting people, big specialists and just good people.