

# Annual Scientific Session of the Department of Algebra and Logic

December 13, 2024, Room 578

## Programme

9:55 – 10:00 Opening

10:00 – 10:30 Vesselin Drensky and Boyan Kostadinov: On central polynomials of  $4 \times 4$  matrices

10:30 – 10:50 Jörg Koppitz: On endomorphism monoids of the star graph

10:50 – 11:00 Break

11:00 – 11:20 Vassil Kanev: Hurwitz moduli varieties parameterizing pointed covers of an algebraic curve with a fixed monodromy group

11:20 – 11:40 Hristo Iliev: Curves on cones and their Tschirnhausen modules

11:40 – 11:50 Break

11:50 – 12:10 Petar Iliev: Modal logic with bi-implication is exponentially more succinct on BT and S4 models

12:10 – 12:30 Dimitar Dobrev: Initiative for Responsible Approach to Artificial Intelligence

12:30 – 13:30 Lunch Break

13:30 – 13:50 Ivan Chipchakov: A normality criterion for locally finite-dimensional central division algebras

13:50 – 14:10 Dimitrinka Vladeva: Semicentral idempotents of triangular matrix rings and of triangular matrix semirings

14:10 – 14:20 Break

14:20 – 14:40 Veselin Filev: Continuous Normalizing Flows and Matrix Models

14:40 – 15:10 Yacine Barhoumi-Andreani: On some integrable aspects of statistical mechanics of phase transitions: the Curie-Weiss model and the 1-dimensional Ising model

15:10 – 15:20 Break

15:20 – 15:35 Vilislav Boutchaktchiev: Weighed T-tests for the validation of the loss-given-default estimate

15:35 – 15:55 Lyubomir Borissov: Distinctness of the “Lifted” Kloosterman Sums over the Prime Field  $F_p$ : *revisited*

15:55 – 16:05 Break

16:05 – 16:35 Marin Genov: A Cauchy-Pompeiu Formula over Finite-Dimensional Commutative Complex Algebras

16:35 – 16:55 Elitza Hristova: Polynomial identities of Lie nilpotent associative relatively free algebras

16:55 – 17:00 Break

17:00 – 17:20 Emil Kolev:  $k$  distinguishable sets