

- ERMEK NURKHAIDAROV, *On Automorphisms of Short Models of PA*.
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In this talk we discuss automorphisms of countable short arithmetically saturated models of PA. A model of Peano Arithmetic is short arithmetically saturated if it is realized all its bounded finitely realized arithmetic types.

[1] shows that: if M_1 and M_2 are countable, arithmetically saturated models of PA such that their automorphism group are isomorphic, then $SSy(M_1) = SSy(M_2)$. We prove a similar result for countable short arithmetically saturated models of PA. In our proof we use the modified encoding of the standard system from [2]. We also use results from [3] which proves that the countable short recursively saturated models of PA have a number of properties analogous to ones of the countable recursively saturated models of PA.

[1] KOSSAK, R. AND SCHMERL, J. H., *The automorphism group of an arithmetically saturated model of Peano Arithmetic*, **London Math. Soc.**, vol 52, 1995, pp. 235–244,

[2] NURKHAIDAROV, E., *Decoding in the automorphism group of a recursively saturated model of arithmetic*, **Mathematical Logic Quarterly**, vol. 61, (2015), 3, pp. 179–188

[3] SHOCHAT, E., *A Galois correspondence for countable short recursively saturated models of PA*, **Mathematical Logic Quarterly**, vol. 56, (2010), 3, pp. 228–238