▸ MANAT MUSTAFA, SERGEY OSPICHEV, *About Rogers semilattices of finite families in Ershov hierarchy.*
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There is a well-known result, that any finite family of c.e. sets has computable principal numbering[1]. In [2], K.Abeshev shows that there is a finite family of sets in Ershov hierarchy without Σ_2^{-1}-computable principal numbering. With the help of Γ-operator in [3], above result can be generalized to any level(finite and successor ordinals) of Ershov hierarchy. Here we concentrate our interest to different types of Σ_2^{-1}-computable numberings of finite families of Σ_2^{-1}-sets and c.e.-sets. The main result is:

Theorem. *Let $\mathcal{S} = \{A, B\}$ be any family with A, B are c.e. sets with $A \subseteq B$ but $A \setminus B$ is not c.e., then the Rogers semilattice $\mathcal{R}_2^{-1}(\mathcal{S})$ is isomorphic to family L_0^m of all m-degrees of c.e. sets.*

Corollary. *Any Σ_2^{-1}-computable numbering of $\mathcal{S}$ is equivalent to some computable numbering of $\mathcal{S}$.*

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[1] A. H. Lachlan, *Standard classes of recursively enumerable sets*, ***Z. Math. Log. Grundl. Math.*** vol. 10 (1964), no. 2-3, pp. 23–42.

[2] K. Abeshev, *On the existence of universal numberings for finite families of d.c.e. sets*, ***Mathematical Logic Quarterly***, vol. 60 (2014), no. 3, pp. 161–167.

[3] I. Herbert, S. Jain, S. Lempp, M. Mustafa, F. Stephan, *Reductions between types of numberings*, ***Preprint***, www.math.wisc.edu/ lempp/papers/redandnumb.pdf.