

- NIKOLAY BAZHENOV, *Rogers semilattices and their first-order theories*.
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A numbering ν is reducible to a numbering μ if there is a total computable function $f(x)$ such that $\nu(n) = \mu(f(n))$ for all n . The notion of reducibility between numberings gives rise to a class of upper semilattices, which are usually called Rogers semilattices. Goncharov and Sorbi (1997) initiated the systematic study of Rogers semilattices for numberings in various recursion-theoretic hierarchies. We give a review of recent results on Rogers semilattices in hyperarithmetical and analytical hierarchies. Special attention is given to the complexity of first-order theories for Rogers semilattices.

The talk is based on joint works with Mustafa, Ospichev, and Yamaleev.