▸ ANDREY FROLOV N., *Low linear orderings.*
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I will talk about low linear orderings with computable presentation. An X-computable linear ordering is called *low*, if $X' \leq_T \emptyset'$. C.G. Jockusch and R.I. Soare [5] proved that any noncomputable c.e. degree contains linear ordering with no computable presentation. Therefore, there exists a low linear ordering with no computable copy.

R.G. Downey, M.F. Moses [2] proved that any low discrete linear ordering has a computable copy (a linear ordering is called *discrete*, if any elemenet has both a successor and a predecessor). It is a natural to ask (R.G. Downey, [1]) — is there a property P of order types which guarantees that if L is low and $P(L)$ then L has a computable presentation?

The author [4] proved that any low strongly η-like linear ordering is isomorphic to a computable one (a linear ordering L is called *strongly η-like*, if $L \cong \sum_{q\in\mathbb{Q}} f(q)$, where $|rang(f)| < +\infty$). Also the author showed that any low 1-quasidiscrete has a computable copy.

Definition A linear ordering is called *k-quasidiscrete*, if any equivalence class either is infinite or contains at most k elements, where $x \sim y$ iff there are only finite set of z such that $x \leq_L z \leq_L y$ or $y \leq_L z \leq_L x$.

Theorem Any low k-quasidiscrete linear ordering is a computable presentable ordering.

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[1] R.G. Downey, *Computability theory and linear orders* // In: Ershov Yu.L., Goncharov S.S., Nerode A., Remmel J.B. (eds.) Handbook of Recursive Mathematics, vol. 138 of Studies in Logic and the Foundations of Mathematics, chapter 14. Elsevier, (1998)

[2] R.G. Downey, M.F. Moses, *On choice sets and strongly nontrivial self-embeddings of recursive linear orderings*, ***Zeitschrift fur Mathematische Logik und Grundlagen der Mathematik***, vol. 35 (1989), pp. 237-246.

[3] R.G. Downey, C.G. Jockusch, *Every low Boolean algebra is isomorphic to a recursive one*, ***Proceedings of the American Mathematical Society***, vol. 122 (1994), no. 3, pp. 871-880.

[4] A.N. Frolov, Δ_2^0 *copies of linear orderings*, ***Algebra and Logic***, vol. 45 (2006), no. 3, pp. 354-370, in Russian (pp. 201-209, in English).

[5] C.G. Jockusch, R.I. Soare *Degrees of orderings not isomorphic to recursive linear orderings*, ***Annals of Pure and Applied Logic***, vol. 52 (1991), pp. 39-61.