ON COUNTABLY SATURATED LINEAR ORDERS AND GRAPHS

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A linear order L is countably saturated if for any countable subsets A,B of L, such that any element of A is less than any element of B, we can find an element of L between them. This obvious generalization of density corresponds to "countable saturation" from model theory. We'll say, that a countably saturated linear order L is prime, if every countably saturated linear order contains an isomorphic copy of L.
I'd like to present a characterization of the prime countably saturated linear order, and outline how it can be used to prove its uniqueness. Also, I will say something about related results concerning certain classes of uncountable graphs.

References

[1] Z. Kostana, *On countably saturated linear orders and certain class of countably saturated graphs*, ArXiv

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