MANUEL LERMAN, *The Decidability of the existential theory of the poset of degrees with jump and least element.*
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We present a decision procedure for the existential theory of the poset of degrees with jump and least element; a sentence in this language is true if it is consistent with the axioms for posets with least element, and the axioms stating that the jump operator $'$ is an order-preserving function which also satisfies $x < x'$ for all x. The proof technique is an iterated trees of strategies priority argument of level n, where n is effectively determined from the sentence.