

A note on the expressive power of linear orders

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We show that there exist two linear orders on the natural numbers such that first-order logic with these two linear orders has the same expressive power as the Bit-predicate. As a corollary we obtain that there is a built-in permutation such that first-order logic with a linear order and this permutation is as expressive as FO(Bit).

(joint work with Thomas Schwentick)