

- ▶ DAVIDE MANCA, *On a weak notion of well order.*

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The subsystem \mathbf{ATR}_0 is a natural environment for the study of countable well orders in the framework of reverse mathematics. In this talk, we consider an alternative notion of well order, defined in terms of embeddings between initial segments. We call the countable linear orders that satisfy the alternative definition weak well orders. The fact that all countable well orders are weak well orders is provable even in very weak subsystems. On the other hand, the reverse implication follows from Laver's theorem. We show that \mathbf{ATR}_0 is equivalent to the fact that all weak well orders are well orders.

The results presented consist of joint work with A. Freund.