Degree spectra of the successor relation of computable linear orderings

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Abstract

We establish that for every computably enumerable (c.e.) Turing degree b the upper cone of c.e. Turing degrees determined by b is the degree spectrum of the successor relation of some computable linear ordering. This follows from our main result, that for a large class of linear orderings the degree spectrum of the successor relation is closed upward in the c.e. Turing degrees. $\[mathbb{C}\]$ 2008 Springer-Verlag.

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