▸ KYUNG IL LEE, *Complexity of Linear Extensions in the Ershov Hierarchy*.
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Using a priority construction, we will prove a strong version of a theorem in Rosenstein [2]: every computably well-founded partial order has a computably well-founded ω-c.e. linear extension. Note that Rosenstein's theorem provides a construction of a computably well-founded Δ^0_2 linear extension under the same condition, using an oracle for $\emptyset'$. On the other hand, Rosenstein [2] gives a counterexample to show that there is a computably well-founded computable partial order with no computably well-founded computable linear extension. We will discuss the possibility of extending this counterexample to that of a computably well-founded d-c.e. linear extension.

[Joint work with S. B. Cooper and A. Morphett.]

[1] Rodney G. Downey, *Computability Theory and Linear Orderings*, ***Handbook of Recursive Mathematics*** **II** (Yu. L. Ershov, S.S. Goncharov, A. Nerode, and J.B. Remmel, editors), Elsevier, Amsterdam, Lausanne, New York, Oxford, Shannon, Singapore, Tokyo, 1998, pp. 823-976.

[2] Joseph G. Rosenstein, *Recursive Linear Orderings*, ***Orders: description and roles*** (Maurice Pouzet and Denis Richard, editors), Elsevier, 1984, pp. 465-475.