1143-03-248 Hossein Lamei Ramandi and Justin Tatch Moore^{*}, Department of Mathematics, Malott Hall, Cornell University, Ithaca, NY 14850. There may be no minimal non σ -scattered linear orders.

Laver proved in 1971 that the class of σ -scattered linear orders is well quasi ordered by embeddability, confirming a conjecture of Fraïssé. Here a linear order is scattered if it does not contain a copy of the rational line and σ -scattered if it is a countable union of scattered suborders. It is natural to ask whether Laver's result can be extended to a broader class of linear orders. This is the same as asking whether there is a linear order which is minimal with respect to being non σ -scattered. Around the time of Laver's result, Baumgartner showed that consistently any set of reals of cardinality \aleph_1 is a minimal non σ -scattered linear order. We prove that, assuming the consistency of a supercompact cardinal, that it is consistent that there are no minimal non σ -scattered linear orders. (Received August 15, 2018)