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On linear orders with no real or Aronszajn suborders

In this talk we will consider what can be said about a linear order which contains neither real nor Aronszajn suborders. It is easily seen that σ-scattered orders fit this criterion. Baumgartner constructed an example which is not σ-scattered and contains neither a real nor Aronszajn suborder. Baumgartner's example is necessarily not minimal with respect to not being σ-scattered. We have shown that PFA implies any minimal non-σ-scattered order of size $\aleph_1$ must either be a real or Aronszajn type. A version of this theorem for larger linear orders will also be discussed, along with the relevance to a theorem of Laver which asserts that the σ-scattered orders are well quasi-ordered. The work presented is joint work with Tetsuya Ishiu.