## The finite condensation and the lattice of ordinals of finite degree

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For linear orders L and M, we define an operation  $\cdot_{\rm F}$  by  $L \cdot_{\rm F} M = (LM)/\sim_F$ , where LM is the lexicographic product of L and M, and  $\sim_F$  is the finite condensation. Using this product, we define a set of weakly order-preserving maps on the ordinals of finite degree in Cantor normal form. One of these maps is related to the Cantor-Bendixson derivative on a linear order equipped with the order topology, and another projects an ordinal of finite degree d onto the ordinal  $\omega^d$ . We show how these maps can be used to navigate a generalized lattice representing the ordinals of finite degree in Cantor normal form.