Airam Blancas Benitez, Tim Rogers, Jason Schweinsberg* (jschwein@math.ucsd.edu) and Arno Siri-Jegousse. The nested Kingman coalescent: speed of coming down from infinity.

The nested Kingman coalescent describes the ancestral tree of a population undergoing neutral evolution at the level of individuals and at the level of species, simultaneously. We study the speed at which the number of lineages descends from infinity in this hierarchical coalescent process and prove the existence of an early-time phase during which the number of lineages at time t decays as $2\gamma/ct^2$, where c is the ratio of the coalescence rates at the individual and species levels, and the constant $\gamma \approx 3.45$ is derived from a recursive distributional equation for the number of lineages contained within a species at a typical time. (Received July 04, 2018)