

Due to their nonlinear nature, the Einstein equations are not closed under weak convergence. Compactness singularities associated to highly oscillatory solutions may be identified with some non-trivial matter. In 1989, Burnett conjectured that, for vacuum sequences, this matter produced in the limit is captured by the Einstein-massless Vlasov model. We give a proof of Burnett's conjecture under some gauge and symmetry assumptions, improving previous work by Huneau–Luk from 2019. This is joint work with André Guerra (University of Oxford).