

In this work we will study the electromagnetic superradiance phenomenon on accelerated systems. We will briefly cover superradiance on a cylinder, which was thermodynamically proven by Zel'dovich. Then we will attempt to formulate the problem in accelerated coordinates, namely the flat-spacetime limit of the C-metric. Briefly introducing the C-metric, the Newman-Penrose formalism and the Geroch-Held-Penrose formalism along the way. Using the formalism of vector spherical harmonics, we point out the complications which arise from not respecting the spherical symmetry of the spherical coordinate system.