

Figure 1: Spacetime region on which we solve the wave equation up to the

cosmological horizons. We solve a sequence of finite problems, i.e., we consider a solution ψ_T with prescribed data on $\Sigma_{r_0}^T \cup C_T^c \cup \overline{C}_T^c$, and then show that the

limit $\lim_{T\to\infty} \psi_T$ exists in a suitable energy space.