

we use a 3D compressible MHD solver in cartesian geometry which can handle conducting or periodic as well as mixed boundary conditions to investigate numerically the arbitrary scale relaxation model proposed by Qin et al [H Qin et al, PRL, 109, 235001 (2012)]. For this purpose, we consider two volumes V_{init} and V_{final} . We load the 3D MHD solver in the limit of zero compressibility with a Taylor-Woltjer state $B_{\text{init}}(x,y,z,t=0)$ and let it again a numerical evolve with conducting boundaries at V_{init} to make sure that we have obtained a numerically steady Taylor - Woltjer state for volume V_{init} . Followed by this procedure, we "suddenly" relax the boundaries to a new volume V_{final} , such that $V_{\text{init}} < V_{\text{final}}$ and evaluate whether or not the system attains quasi-steady state. Details of the numerical method used, the protocol followed, the expansion technique and the novelty of this numerical experiment and details of our results have been presented in this paper.