



Figure 3 – This figure explores the reason for the attenuation of higher frequency perturbations (>20 mHz) shown in Figure 2 of the auxiliary material (and Figure 2B in the manuscript) for the lower resolution grids. Left) The power spectral density of solar wind density fluctuations is shown versus frequency at the outer boundary (black line), $r=(30,0,0)$ Re (blue line), $r=(25,0,0)$ Re (green line), and $r=(20,0,0)$ Re (red line). The high frequency power spectral density is smaller at larger distances from the outer boundary. This is because high frequencies correspond to small spatial structures in the solar wind rest frame; these smaller structures are not completely resolved by the $1/8$ Re grid cells. Right) The power spectral density of solar wind density fluctuations is shown versus frequency at the outer boundary (black line), and at $r=(20,0,0)$ Re for grid 2 (blue line) and grid 3 (red line). Grid 3 has smaller grid cells near the outer boundary, enabling it to better resolve the smaller scale density structures in the solar wind and thus leading to higher power spectral densities (relative to grid 2) at higher frequencies.