



FIG. 29: Predicted  $\nu_\mu$  (top) and  $\bar{\nu}_\mu$  (bottom) fluxes at the MiniBooNE detector by parent meson species with horn in neutrino mode. The black line is the total predicted flux, while all the subcomponents apart from the dashed black are from nucleon-induced meson production of the indicated decay chains. The dashed black histogram includes all other contributions, primarily from meson decay chains initiated by meson-nucleus interactions.