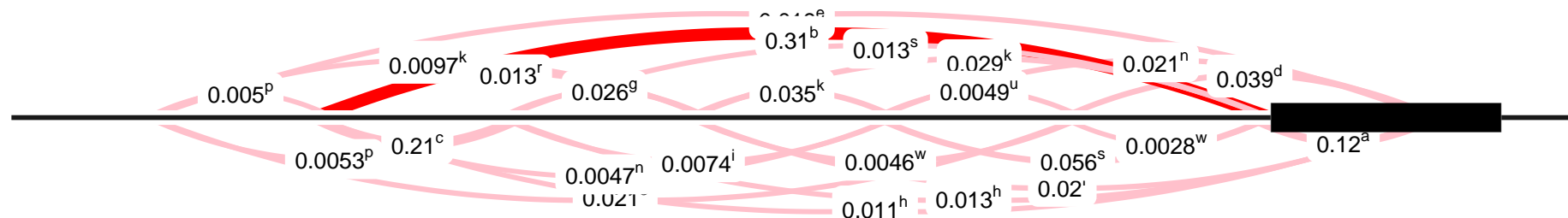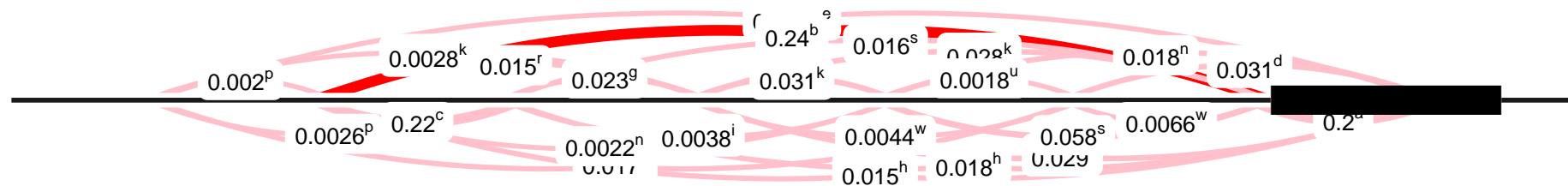UBC_clu_97156_-_top_4.pdf