



- The purpose of these figures is to use BIC to compare the performance of the EM algorithm between R's mclust and Python's GaussianMixture.
- I did this by saving the results of different methods of hierarchical agglomeration, then using these as initializations of the EM algorithms.
- Each line in the plots above corresponds to a different hierarchical agglomeration method (R's EEE, EII, VII, VVV modes and Python's average, complete, single, and ward's linkages on euclidean distance = 8 total agglomeration methods)
- Each plot corresponds to an EM mode that is implemented in BOTH python and mclust. For example 'full' mode in GaussianMixture and 'VVV' mode in mclust are *theoretically* equivalent and they are found in the plot titled 'full', the other pairs are: 'tied'='EEE', 'diag'='VVI', and 'spherical'='VII'

- The y axis in each plot is python's BIC minus R's BIC. So, negative values indicate that R did better, according to BIC