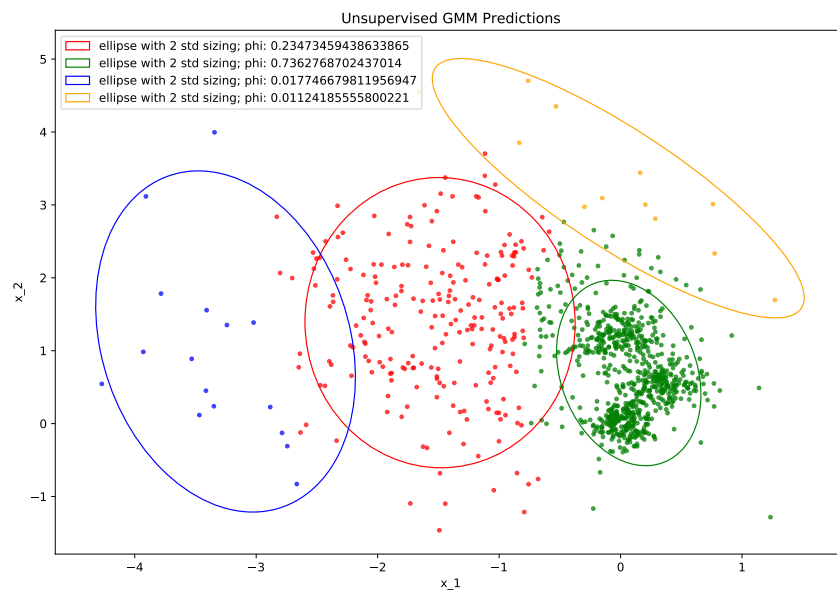
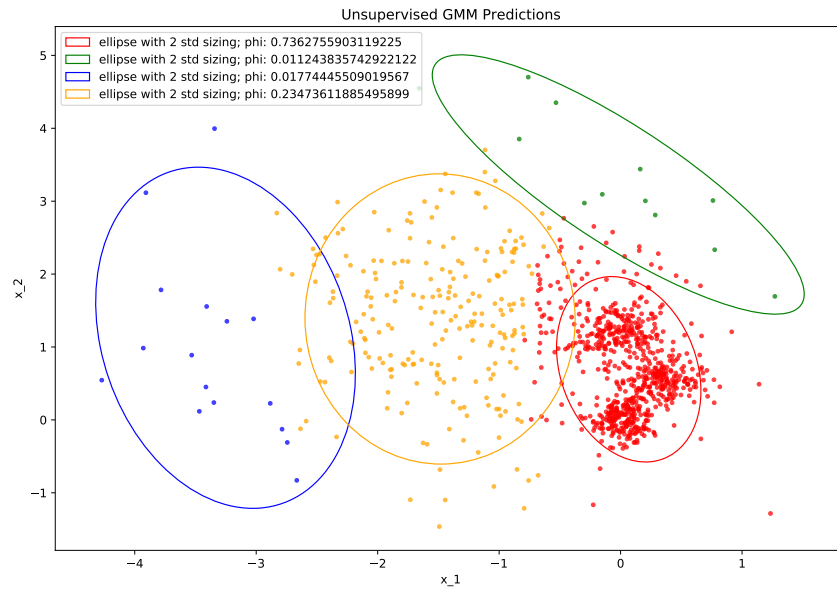
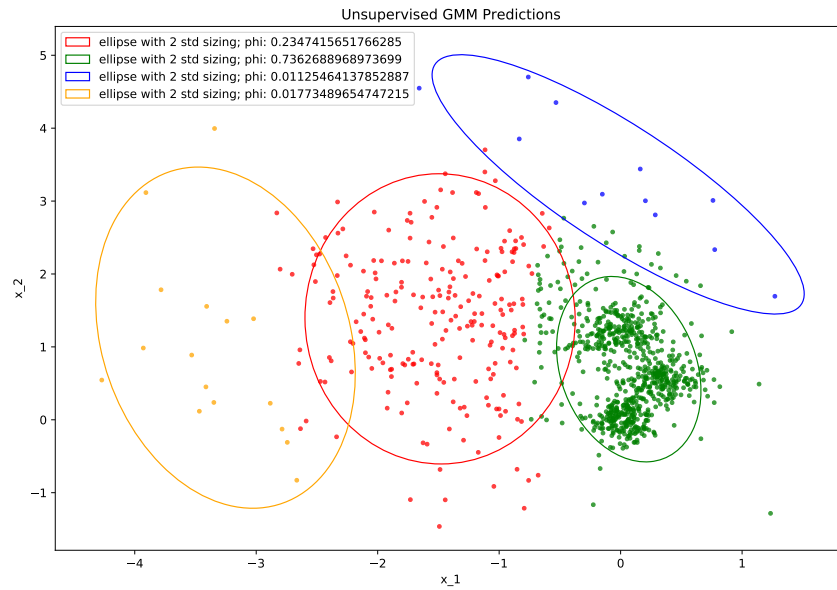


Answer:





Our 3 trials took 101, 57, 95 iterations to converge respectively, however they've all converged to a very similar 4 clusters. I struggled a bit to get the ellipses to work but displayed are the mean centered 2 standard deviation width / height ellipses for each estimated cluster gaussian covariance. This is not quite the same thing as a 95% confidence interval but it's a useful verification of what's occurring