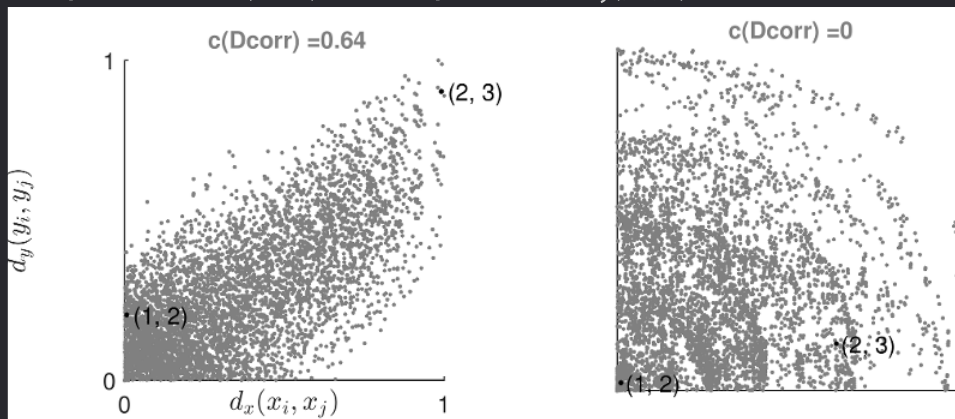
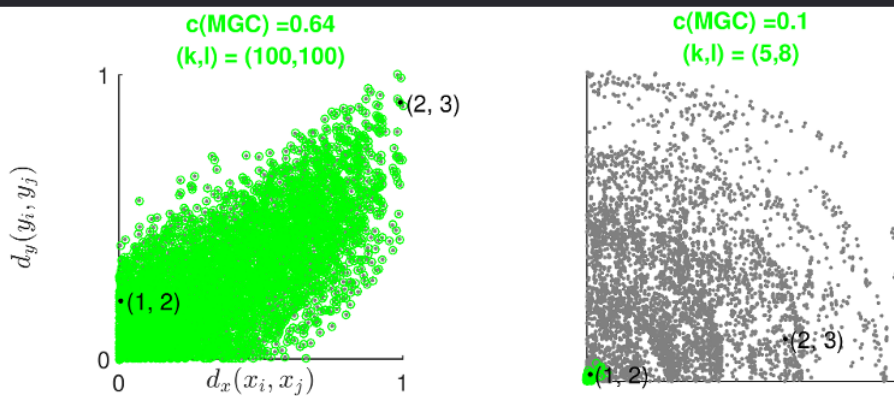


i Compute the distances between all pairs, specifically all pairs of  $x_i$ ,  $d_x(x_i, x_j)$ , and all pairs of  $y_i$ ,  $d_y(y_i, y_j)$ .



ii Find max local correlation between  $d_x$  and  $d_y$ , i.e., only including  $(k,l)$  smallest values for each sample.



iii Compute the p-value via permutation test, and determine the informative scales (those with small p-values)

