where is the vector of ranked expression levels associated with gene . Consider gene a vector of expression levels associated with gene . If the expression levels are such that then the vector of ranked expression levels . The vector of expression levels associated with gene will be ranked similarly. A mean rank value will be calculated for and , which enables the covariance to be calculated:

The SCC ( is the covariance divided by the product of the SD of each ranked vector.

For a given pair of genes, their distance can be measured in kilobases, and do each SCC can be associated with a distance in kilobases. A plot of as a function of distance in kilobases is assumed to have an exponential form