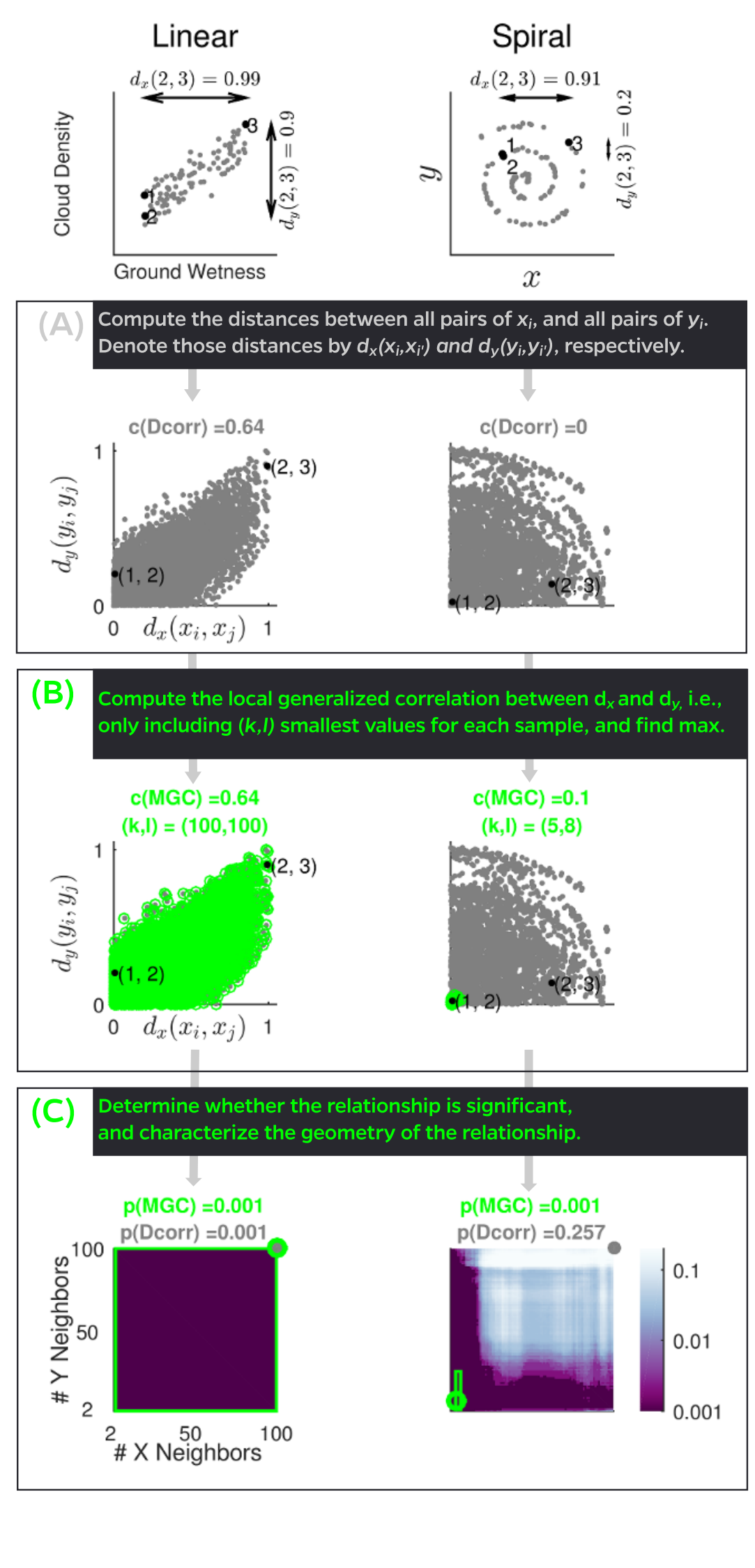
Linear
Spiral
$d_x(2,3) = 0.99$
$d_y(2,3) = 0.9$
Cloud Density
Ground Wetness
$d_x(2,3) = 0.91$
$d_y(2,3) = 0.2$
y
x
(A)
Compute the distances between all pairs of x_i, and all pairs of y_i. Denote those distances by $d_x(x_i,x_{i'})$ and $d_y(y_i,y_{i'})$, respectively.
c(Dcorr) =0.64
c(Dcorr) =0
$d_y(y_i, y_j)$
$d_x(x_i, x_j)$
(1, 2)
(2, 3)
(B)
Compute the local generalized correlation between d_x and d_y, i.e., only including (k,l) smallest values for each sample, and find max.
c(MGC) =0.64
(k,l) = (100,100)
c(MGC) =0.1
(k,l) = (5,8)
(C)
Determine whether the relationship is significant, and characterize the geometry of the relationship.
p(MGC) =0.001
p(Dcorr) =0.001
p(MGC) =0.001
p(Dcorr) =0.257
Y Neighbors
X Neighbors
0.1
0.01
0.001