

1 Spatial Ergodicity

Can spatial DGP's be ergotic in location given a valid measure space?

Let us denote a spatial plane by the real line. Then there is a mapping from the spatial plane by a data generating process, let us denote it;

$$F : R \rightarrow R$$

Then "Spatial Ergodicity" implies that an individual observed data point $y_i, i \in R$ is represented by some closed interval on R , denoted C_i . Thus, we can find some $j \in R$ such that $j \notin C_i$

Thus, we can find (given that we have a single dimensional space), a M and N such that

$$E(y_i|y_j, y_k) = 0 \forall j > M, k < K$$