

NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Economics - NOC:Spatial Statistics and Spatial Econometrics

Subject Co-ordinator - Prof. Gaurav Arora

Co-ordinating Institute - IIT - Madras

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Introduction to Spatial Data Analysis
- Lecture 2 - Spatial Patters and Data Generating Process
- Lecture 3 - Spatial Data Structures
- Lecture 4 - A short exercise: Land Use Land Cover Analysis
- Lecture 5 - A general spatial data model
- Lecture 6 - Spatial Statistics: measures of variation; spatial random function
- Lecture 7 - Entropy - I
- Lecture 8 - Entropy - II
- Lecture 9 - Spatial Entropy - I
- Lecture 10 - Spatial Entropy - II
- Lecture 11 - Introduction to Spatial Autocorrelation
- Lecture 12 - Spatial Autocorrelation Implications for Inference - II
- Lecture 13 - Spatial Autocorrelation Implications for Inference - II
- Lecture 14 - Spatial Autocorrelation Implications for Inference - 2-D Example
- Lecture 15 - Spatial Autocorrelation Implications for Inference - Monte Carlo Simulations
- Lecture 16 - Exploratory Spatial Data Analysis
- Lecture 17 - Exploratory Spatial Data Analysis: Example of Groundwater Data
- Lecture 18 - Stationarity in Spatial Statistics
- Lecture 19 - Stationarity in Spatial Statistics: Example of Groundwater Data
- Lecture 20 - Spatial Dependence
- Lecture 21 - Variogram and Semivariogram
- Lecture 22 - Covariogram and Correlogram
- Lecture 23 - The experimental variogram
- Lecture 24 - The experimental variogram on an irregular lattice
- Lecture 25 - Variogram estimation
- Lecture 26 - Variogram model fitting
- Lecture 27 - Variogram model fitting
- Lecture 28 - Non-stationary spatial domains
- Lecture 29 - Spatial interpolation and Kriging

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- Lecture 30 - Spatial Regression Analysis
- Lecture 31 - Spatial Regression Analysis
- Lecture 32 - Spatial dependence in a regression model
- Lecture 33 - Spatial dependence in a regression model
- Lecture 34 - Generalized least squares estimation in the presence of spatial dependence
- Lecture 35 - Spatial weights matrix
- Lecture 36 - Causal Inference in spatial regression models
- Lecture 37 - Endogenous effects in a spatial regression model
- Lecture 38 - Spatially lagged variables in regression models
- Lecture 39 - Spatially lagged variables in regression models
- Lecture 40 - LISA statistics
- Lecture 41 - Lagrange Multiplier Test for Spatial Regresison Model
- Lecture 42 - Exploratory Analysis of Groundwater Level Data in ArcGIS Pro
- Lecture 43 - Raster data in ArcGIS Pro
- Lecture 44 - Computing experimental variograms in R - I
- Lecture 45 - Computing experimental variograms in R - II
- Lecture 46 - Fitting model variograms in R
- Lecture 47 - Kriging and cross-validation in R
- Lecture 48 - Spatial linear regression in R - I
- Lecture 49 - Spatial linear regression in R - II