

## INTISARI

### ***GEOGRAPHICALLY WEIGHTED LASSO*** **(STUDI KASUS : PDRB PROVINSI JAWA TIMUR TAHUN 2015)**

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*Geographically Weighted Regression* (GWR) merupakan salah satu metode statistika yang dapat digunakan untuk mengatasi masalah heterogenitas spasial. Seperti pada model regresi linear berganda, masalah multikolinearitas juga dapat ditemukan pada regresi spasial. Hal ini disebut juga multikolinearitas lokal. *Geographically Weighted Lasso* (GWL) merupakan metode yang dapat mengatasi masalah heterogenitas spasial dan multikolinearitas lokal. GWL menerapkan teknik Least Absolute Shrinkage and Selection Operator (LASSO) ke dalam model GWR untuk memperoleh estimasi parameter. Studi kasus pada skripsi ini menggunakan data PDRB di Provinsi Jawa Timur tahun 2015. Diperoleh kesimpulan bahwa metode GWL memiliki performa yang lebih baik daripada metode GWR.

Kata Kunci : heterogenitas spasial, multikolinearitas lokal, lasso, GWR, GWL.

***ABSTRACT***

***GEOGRAPHICALLY WEIGHTED LASSO  
(CASE STUDY : GROSS DOMESTIC REGIONAL PRODUCT (GDRP) OF  
EAST JAVA PROVINCE IN 2015)***

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*Geographically Weighted Regression (GWR) is a statistical method that can be used to solve a spatial heterogeneity problem. As in multiple linear regression, multicollinearity problems can also be found in spatial regression. This is also known as local multicollinearity. Geographically Weighted Lasso (GWL) is a method that can be used to solve spatial heterogeneity and local multicollinearity problems. GWL applies a LASSO (Least Absolute Shrinkage and Selection Operator) technique in GWR to get the parameter estimates. The case study in this thesis uses GRDP data in East Java Province in 2015. It is concluded that the GWL method has better performance than the GWR method.*

*Keywords : spatial heterogeneity, local multicollinearity, lasso, GWR, GWL.*