

**UJI KETIDAKSESUAIAN MODEL REGRESI  
DENGAN REPLIKASI PADA VARIABEL BEBAS  
YANG BERDEKATAN**

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MPM 31/02

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**SKRIPSI**



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PERPUSTAKAAN  
UNIVERSITAS AIRLANGGA  
SURABAYA

AMAN

**JURUSAN MATEMATIKA  
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM  
UNIVERSITAS AIRLANGGA  
SURABAYA  
2002**

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**SKRIPSI**

**Sebagai Salah Satu Syarat Untuk Memperoleh  
Gelar Sarjana Sains Bidang Matematika pada Fakultas Matematika dan  
Ilmu Pengetahuan Alam Universitas Airlangga**

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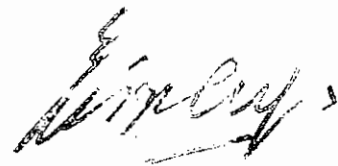
**Tanggal Lulus : 26 Pebruari 2002  
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## LEMBAR PENGESAHAN SKRIPSI

**Judul** : **UJI KETIDAKSESUAIAN MODEL  
REGRESI DENGAN REPLIKASI PADA  
VARIABEL BEBAS YANG BERDEKATAN**

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**Tanggal Ujian** : **26 Februari 2002**

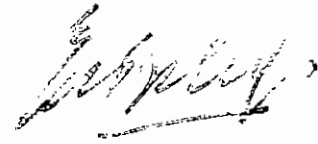
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Aman, 2002. Lack of fit test of regression model with replication on near independent variable. Drs. Eto Wuryanto, DEA. and Drs. Eko Tjahjono are adviser of this thesis. Mahematics Departement, Mathematics and Natural Sciences Faculty, Airlangga University.

## ABSTRACT

On Regression analysis, the lack of fit test with replication on exact independent variables has been discussed by Draper and Smith. In this paper, we will develop the lack of fit test of regression model with replication on near independent variables.

Replication is repetition of observation on independent variables. There are two steps on a lack of fit test of regression model on near replication independent variables. The first step in joining on independent variables by a clustering analysis method. There are three methods will be used, i.e : single linkage, complete linkage and average linkage. The second step is testing the lack of fit of regression model. We want that testing result is more precise if we use these methods. One cluster is repetition of observation on near independent variables.

The S-Plus software can be used to solve the lack of fit test of regression model with replication on near independent variables. In this paper, we give tow examples of problem, which be clustered by three methods. These methods of clustering give he same result. There is no indication that the model of regression in uncorrect. The result of second problem is similar.

Key words : Linier regression, Replication, Clustering analysis, Lack of fit test