

広島統計談話会  
Hiroshima Statistics Study Group

第 236 回談話会を下記のように開催致しますので  
御参集下さいますよう御案内申し上げます。

You are cordially invited to the 236<sup>th</sup> meeting as scheduled below.

日 時 : 2007 年 5 月 25 日 (金) 15:00-  
Date : May 25, 2007 (Fri) 15:00-  
場 所 : 放射線影響研究所 講堂  
Place: RERF Auditorium  
演 者 : 若木 宏文 博士 (広島大学大学院理学研究科数学専攻教授)  
Speaker: Hirofumi Wakaki, Ph.D., Professor, Department of Mathematics,  
Graduate School of Science, Hiroshima University  
演 題 : 「共分散行列の検定統計量の分布の高次元エッジワース展開の誤差限界」  
Title: “Error bounds for high-dimensional Edgeworth expansions for some  
tests on covariance matrices”

要 約 :  
Summary :

Problems of testing three hypotheses: (i) equality of the covariance matrices of several multivariate normal populations, (ii) sphericity, and (iii) that the covariance matrix is equal to the specified one, are treated.

High-dimensional Edgeworth expansions of the null distributions of the modified likelihood ratio test statistics are derived. Computable error bounds of the expansion are derived for each expansions. The Edgeworth pansion and its error bound for non-null distribution of the test statistic for (iii) are also derived.