広島統計談話会

Hiroshima Statistics Study Group

第 321 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ご案内申し上げます。

You are cordially invited to the 321st meeting as scheduled below.

日　時： 2019 年 12 月 13 日（金）15:00 –
Date　: 15:00 –, Friday, December 13 , 2019

場　所： 放射線影響研究所　講堂
Place　: Auditorium, RERF

演　者： 林　賢一 博士（慶應義塾大学 理工学部数理科学科　准教授）
Speaker　: Kenichi Hayashi, Ph. D.
Associate Professor
Department of Mathematics, Faculty of Science and Technology,
Keio University

演　題： 「Power-IDI：IDI に基づく予測能改善の定量化」

Title　: "The power-IDI: a quantification of the incremental predictive value based on the integrated discrimination improvement"

要　約：

Summary:

The predictive performance of biomarkers is a central concern in biomedical research. This is often evaluated by comparing two statistical models: a "new" model incorporating additional biomarkers and an "old" model without them. The integrated discrimination improvement (IDI) was proposed for cases, and became popular during the last decade as a promising alternative to conventional measures, such as the difference of the area under the ROC curve. However, the IDI can erroneously identify a significant improvement in the new model even if no additional information has been provided by new biomarkers. In order to overcome problems with existing measures, we propose a novel measure of incremental predictive value. We establish that the IDI cannot avoid false detection of apparent improvements in a new model and show that our proposed measure is better able to capture improvements in prediction.