

広島統計談話会
Hiroshima Statistics Study Group

第 274 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 274th meeting as scheduled below.

日 時 : 2012 年 12 月 21 日 (金) 15:00 –
Date : December 21, 2012 (Fri) 15:00 –

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

演 者 : 古川 恭治 (放射線影響研究所統計部副主任研究員)
Speaker : Kyoji Furukawa, Ph.D.
Associate Senior Scientist
Department of Statistics, RERF

演 題 : 「不完全な疫学データの扱い方」
Title : “ Handling incomplete data in epidemiology --- some guidelines and an application ”

要 約 :

Summary:

While data are unavoidably missing or incomplete in many observational studies, investigators are often unaware of consequences of mishandling incompleteness in data. Simple methods such as case deletions and indicator adjustments are still common in epidemiology but can result in invalid estimations with substantial biases and/or reduced efficiencies. Among many other approaches, multiple imputation (MI) has been commonly recognized as a principled method under the assumption of missing at random (MAR), but it is less commonly known that it can easily fail when inappropriately applied. Showing some counter-intuitive examples, this presentation first attempts to provide some practical guidelines on when and how we should analyze incomplete data with MI. Secondly, using a problem of incomplete smoking data, it is demonstrated that MI may be particularly appealing in a large-scale cohort study with a time-varying covariate incompletely observed depending complicatedly on other variables while keeping efficiency by retaining known information.