広島統計談話会

Hiroshima Statistics Study Group

第 298 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 298th meeting as scheduled below.

日　時：	2016 年 6 月 10 日（金）15:00 –
Date　：	June 10, 2016 (Fri) 15:00 –
場　所：	放射線影響研究所　講堂
Place　：	RERF Auditorium
演　者：	王 文傑　博士 (広島大学大学院 社会科学研究科 特任助教)
Speaker　：	Wenjie Wang, Ph.D.
	Assistant Professor (Special Appointment)
	Graduate School of Social Sciences, Hiroshima University
演　題：	「多くの弱い操作変数でのブートストラップおよびサブサンプリング推測」
Title　：	"Bootstrap and subsampling inference with many weak instruments"

要　約：

Summary:

　　　Instrumental variables have been widely used for estimating the causal effect between exposure and outcome. We analyze the application of bootstrap methods to instrumental variable models when the available instruments may be weak and the number of instruments goes to infinity with the sample size. We demonstrate that the standard residual-based bootstrap procedure cannot consistently estimate the distribution of the limited information maximum likelihood estimator or Fuller (1977) estimator under many/many weak instrument sequence. The primary reason is that the bootstrap procedure fails to capture the instrument strength in the sample adequately. We propose modified bootstrap procedures that provide a valid distributional approximation for the two estimators with many/many weak instruments. Finally, we discuss the validity of the subsampling method in this case.