# 國立中山大學應用數學系
# 學術演講

講　者：Professor Masanobu Taniguchi
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講　題：Statistical Estimation of Optimal Portfolios for Dependent Returns

時　間：2015/1/6（星期二）16：10～17：00

地　點：理學院四樓理 SC 4009-1 室

茶　會：15:30 於理 SC 4010 室 (系辦公室)

## 摘要

In this talk, we discuss the asymptotic efficiency of estimators for optimal portfolios when returns are vector-valued non-Gaussian stationary processes. We give the asymptotic distribution of portfolio estimators $\hat{g}$ for non-Gaussian dependent return processes. Next we address the problem of asymptotic efficiency for the class of estimators $\hat{g}$. First, it is shown that there are some cases when the asymptotic variance of $\hat{g}$ under non-Gaussianity can be smaller than that under Gaussianity. The result shows that non-Gaussianity of the returns does not always affect the efficiency badly. Second, we give a necessary and sufficient condition for $\hat{g}$ to be asymptotically efficient when the return process is Gaussian, which shows that $\hat{g}$ is not asymptotically efficient generally. From this point of view we propose to use maximum likelihood type estimators for $g$, which are asymptotically efficient. Also we report that the results are extended to the case when the return processes are locally stationary. This is a joint work with Hiroshi Shiraishi.

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