*Econometric Theory*, **22**, 2006, 763–764. Printed in the United States of America.
DOI: 10.1017/S0266466606060488

# THE 2003–2005 TJALLING C. KOOPMANS *ECONOMETRIC THEORY* PRIZE



*Econometric Theory* is proud to announce the winning article for The Tjalling C. Koopmans *Econometric Theory* Prize for the period 2003–2005 inclusive. The winning article and citation (written by the Advisory Board and Editor) are as follows:

Yongmiao Hong and Tae-Hwy Lee are awarded
the Tjalling Koopmans *Econometric Theory* Prize
for their paper

## Diagnostic Checking for the Adequacy of Nonlinear Time Series Models

which appeared in
*Econometric Theory* 19(6), December 2003, pages 1065–1121

© 2006 Cambridge University Press 0266-4666/06 $12.00 

https://doi.org/10.1017/S0266466606060488 Published online by Cambridge University Press

## Citation

This paper proposes a diagnostic test for the adequacy of time series models, allowing for rather general model classes, involving possibly nonlinear parametric functions of past information that include both conditional heterogeneity and conditional duration specifications. The test is based on the estimated noise process, relying on the joint and marginal characteristic functions of pairs of noise variables at different time distances to test for pairwise independence. The test employs the (generalized) spectrum of these quantities and therefore does not require moment conditions, and applies under a suitable mixing condition. Under the null of correct specification the generalized spectrum is constant and the test measures departures from this null using a standardized $L_2$ distance. Asymptotic properties of the test are derived, data driven choices of the bandwidth for estimation of the generalized spectrum and their asymptotic properties are discussed, Monte Carlo studies are presented, and an empirical application to daily stock prices is given.

The prize is jointly supported by the publishers, Cambridge University Press, and Mrs. Truus Koopmans. It is named in honor of Tjalling C. Koopmans, the 1975 Nobel Laureate in Economic Science. The selection of the winning article was made by the Advisory Board of the Journal and all articles published in *Econometric Theory* over 2003–2005 inclusive were candidates for the prize, except those that were authored or coauthored by the Editor and members of the Advisory Board. The prize is accompanied by a financial award of $1,000 to the winning author.

Cambridge University Press joins me in congratulating the authors on their success in receiving this award.

Peter C. B. Phillips
New Haven, CT
March 15, 2006

https://doi.org/10.1017/S0266466606060488 Published online by Cambridge University Press