

*The Hong Kong University of Science and Technology*

***Seminar on Business Data Science***

*Department of ISOM*

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**Pricing Kernels are Often Non-monotone...**

**By**

**Prof. Wolfgang Karl Härdle**

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**Date: 28 February 2025 (Friday)**

**Time: 1:45pm – 2:45pm**

**Venue: Room 4047 (LSK Business Building)**

***Abstract***

Nonparametric estimation of the pricing kernel has led to a "puzzle", that challenged finance principles. The apparent non monotonicity of the empirical pricing kernel has been addressed as improper use of past and future observations. A new CDI spline based smoothing technique-reflecting the forward looking information sets-puts the estimated pricing kernel into a seemingly theory compatible shape. Our findings, though, show equivalence between the two techniques. We discover that CDI cannot be fully consistent since it relies on averaging in an almost constant stochastic dynamics world. Empirical insights rather point to economic phenomena and not to technical flaws.

Joint Work with Zhou Lei, Wang Ruting, ZUO Xiaorui and Teng Huei-Wen

**All interested are welcome!**

**For details, please contact ISOM Department.**

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