

Neural Tangent Kernel in Implied Volatility Forecasting: A Nonlinear Functional Autoregression Approach

When? 12:00 – 13:00, 12.10.2023
Where? Room E5.22, Roeterseiland Campus, UvA
Who? Ying Chen – National University of Singapore

Abstract: Implied volatility (IV) remains a pivotal yet intricate component of financial markets, posing continuous challenges for accurate forecasting. We present a Nonlinear Functional Autoregression framework tailored to the series of implied volatility surfaces-a dynamic domain influenced by moneyness and maturity. This approach, designed for European put and call options, adeptly navigates the nonlinear and asymmetric temporal and spatial dependencies intrinsic to IV. Central to our approach is the functional Neural Tangent Kernel (fNTK) estimator. Grounded in the Neural Tangent Kernel parameterization, this estimator presents a modern statistical solution… For the full abstract, please see here for the online seminar announcement.

All are welcome!
Lunch will be provided

Organisers
- CeNDEF @ Amsterdam School of Economics
- Tinbergen Institute
- SBE @ Vrije Universiteit Amsterdam
- AI4FinTech @ University of Amsterdam

Questions?
Please reach out to the seminar organisers:
Fabian Greimel
Simon Trimborn