

Seminar

## Professor Lin DU

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### Topic

An Efficient identification method for dynamic systems based on sparse identification and deep learning

### Date | Time

19 December 2024 (Thursday) | 15:00 – 16:00 (HK Time)

### Venue:

TU817, Main Campus

### Abstract:

The report mainly introduces two types of system identification methods based on sparse identification and neural network frameworks, including the fast SINDy method based on model selection and dictionary learning, and the ODE-RC algorithm by combining Symplectic Integrator and Reservoir Computing. The identification and prediction performance of several types of dynamic systems have verified the advantages of the above methods in terms of interpretability, training speed, and prediction accuracy.

ALL ARE WELCOME