



# INVITATION

as part of the Mathematical Physics Theory Seminar

to the talk by

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on

***“Exploring Magnetic Quiver through Data Analysis and  
Machine Learning: Unveiling Patterns and Towards  
Predictive Models“***

**Abstract:**

Magnetic quivers offer a powerful framework for investigating the Higgs branch of supersymmetric gauge theories across dimensions  $d=3,4,5$ , and 6, where fission and decay processes within quivers correspond to the Higgsing in the underlying theory. In this talk, I will introduce a brute-force scanning approach, enhanced by data analysis and machine learning, to systematically explore quiver architecture. This approach facilitates the use of machine learning models to uncover patterns and predict Hasse diagram pathways, automating the study of complex quiver structures.

A moderate introduction to machine learning concepts will also be provided, making this talk accessible to newcomers and showcasing the potential of these tools for advancing research.

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**Time: Tuesday, 5 November 2024, 2:00 p.m.**

**Location: Erwin-Schrödinger Lecture Hall, 1090 Vienna, Boltzmannngasse 5, 5<sup>th</sup> floor**