



UNIVERSITY OF MIAMI
COLLEGE of
ARTS & SCIENCES

Miami Physics Conference 2025

Date: Dec 12-18, 2025
Location: Lago Mar Resort
Affiliation: University of Alabama

Katia Matcheva

Quantum Machine Learning for Analyzing Exoplanet Transmission Spectra

Abstract

We present the results from the experimental use of quantum machine learning models to the analysis of transmission spectra of transiting planets and discuss the pros and the cons of this new technology. We discuss the accuracy of the models, the efficiency in training, as well as the ability of the models to generalize information from data using quantum representation.