







## SEMINAR

## Neural quantum kernels

Pablo Rodríguez-Grasa (University of the Basque Country, Spain)

Friday, 8 November 2024 @ 14h00-15h00 SAST

Venues: Online and Physics Seminar Room, Stellenbosch University

## **ABSTRACT**

In recent years, various quantum machine learning models have been proposed. While parameterized quantum circuits face trainability issues, quantum kernel-based models require optimal feature map selection tailored to the problem. In this talk, we present neural quantum kernels: embedding quantum kernels constructed from a quantum neural network. We will discuss how combining these two approaches can yield a more robust model and showcase a practical application in the field of satellite image classification.

## **BIOGRAPHY**

Pablo Rodríguez-Grasa obtained his undergraduate degree in Physics from the University of Barcelona in Spain. He completed his Master's degree at the University of the Basque Country (UPV/EHU). He is currently a PhD student at the same university, where he is working on a project with Mikel Sanz (UPV/EHU).



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