

# Algebra and Geometry Seminar

**Speaker:** Marco Antonia Armenta (Université de Sherbrooke)

**Title:** Double framed moduli spaces of quiver representations and applications to neural networks

**Abstract:** I will present an introduction to the study of neural networks using double framed quiver representations and show why it is important for these applications to understand the structure of moduli spaces of these types of representations. I will give both a linear algebra description and a representation-theoretic description of these moduli spaces and then show that the output of a neural network depends only on the corresponding point in the moduli space. There is no need to know anything about neural networks to follow this talk as I will give you all the necessary definitions.