Title:

On Essences and Haecceities in Modern Physics

Abstract:

In this talk I would like to explore some connections between recent metaphysical discussions on essentialism and de re modalities on the one hand and certain conceptual problems in general relativity (GR) and quantum mechanics (QM) on the other. My emphasis will be on particular types of symmetries present in the selected physical theories: general covariance in GR and permutation invariance in QM. I will attempt to answer the question of the ontological status of physical models related by the appropriate types of symmetries in the light of the metaphysical position I dub "serious essentialism".