COLLOQUIUM

Yong Liu
University of Regina

Classifying space for a category and its application

Mathematics and Statistics

Date: Friday, Feb 13, 2015
Time: 3:30 - 4:30 PM
Room: RIC 209

Abstract: For a (small) abelian or triangulated category, we will construct a topological space (called classifying space) from a set of certain nice subcategories (such as Serre subcategories, thick subcategories or localizing subcategories etc.) with inclusion as its partial order, so that any topological space that classifies these subcategories is homeomorphic to the corresponding classifying space, after taking the Kolmogorov quotient.

Another result following asserts that this classifying space enables us to classify subcategories which are g-primely generated, and many well-known results fit into our framework. As examples, we will play with the category of finitely generated abelian groups and its Serre subcategories throughout the talk.

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