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SCHOOL OF PURE AND APPLIED SCIENCES

DIVISION OF RESEARCH, INNOVATION AND GRANTS (DRIG)

A seminar by: **Dr. Victor Muthama Musau**Department of Pure and Applied Sciences, Kirinyaga University

Model-Based Clustering using Quantile Regression

 30^{TH} March, 2021| 9:00 - 10:00 AM

Venue: Virtual

Abstract

Clustering has received much attention in Statistics and Machine Learning. Several clustering approaches have been successfully implemented with a majority of them based on the Latent Class Analysis framework. Latent variable models, including the finite mixture models have allowed the theory of clustering to transition from the traditional heuristic distance-based clustering approaches to model-based clustering approaches that are based on formal statistical models thus allowing one to make inference on the resulting clusters. However, concerns remain on the robustness of the implemented techniques. This seminar focuses on developing a model-based clustering technique that is capable of addressing key robustness issues raised in the literature. The proposed methodology is illustrated through a simulation study and real data application.

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