SEMINARIO SALUD DIGITAL

Expositor: Maikol Solís
Afiliación: Escuela de Matemática, Centro de Investigación en Matemática Pura y Aplicada (CIMPA), Universidad de Costa Rica.

Título: Machine learning-driven COVID-19 early triage and large-scale testing strategies based on the 2021 Costa Rican Actualidades survey.

Resumen: Due to resource limitations, the COVID-19 pandemic presented substantial challenges for large-scale testing. Traditional approaches often fail to balance detection rates with limited reagents and laboratory capacity. In this work we introduced a machine learning–driven triage framework to stratify individuals by contagion risk and deploy adaptive testing protocols accordingly. We adapted the strategies according to the characteristics of RT-PCR tests, which offer high sensitivity, but they require specialized laboratories, and alternative tests, which trade speed for lower accuracy. We hypothesized that combining risk-based classification with cost-effective testing methods could optimize case detection and resource utilization.

Martes 28 de octubre a las 12:00 hrs, John von Neumann , piso 7 torre norte, Beauchef 851.