



CIRRELT

CRI²GS

Centre sur l'intelligence² en
gestion de systèmes complexes

Séminaire conjoint CIRRELT et CRI2GS

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PhD

Université Laval

Public University of Navarre



From Data to Decisions in Critical Care Management: AI and Operational Research Synergy

Abstract:

In Critical Care Management, the fusion of Artificial Intelligence (AI) and Operational Research (OR) drives transformative progress. This study explores its critical role, using machine learning to predict ICU patient length of stay based on admission data. These predictions are seamlessly integrated into a comprehensive simulation model, offering estimates of future ICU occupancy. This innovative approach provides healthcare professionals with insights for resource allocation and patient care. It also aids administrators and policymakers in optimizing ICU bed management, particularly during peak demand. Amid the evolving healthcare landscape, AI and OR synergy emerges as a solution to reshaping Critical Care Management.

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Daniel Garcia-Vicuña has a Ph.D. in Industrial Engineering at the Public University of Navarre, Spain. Currently, he is a postdoctoral researcher at Université Laval. His research interests are focused on the field of simulation modeling of complex real-world problems.

MARDI / TUESDAY

3 October/octobre 2023

10h30 – 12h

**Salle / Room A-2730
Pavillon Hubert-Aquin
UQAM**

Ouvert à tous / Open to all

Organisatrice / Organizer

Ana María Anaya-Arenas