



CoCo Seminar Series Fall 2019

Using Stochastic Decision Making Processes to Improve Alzheimer's Disease Screening

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Wednesday November 13, 2019 11:00am-12:00pm
Engineering Building T-1 (Multipurpose Room)

Family history, genetics, Down syndrome, head injury, high cholesterol levels, high blood pressure, and diabetes are some of the factors that place individuals at a higher risk of developing Alzheimer's disease (AD). To manage this risk and its complications, persons more susceptible to AD should be regularly screened. To determine an optimal screening plan, we develop a finite horizon, partially observable Markov decision process model for individuals transitioning through different stages of AD. The model aims to maximize the Quality Adjusted Life Years (QALY) for individuals.

Dr. Saeideh Mirghorbani is an Assistant Professor of Supply Chain Management and Analytics in the School of Management at Binghamton University. Her research interests include applied operations research in healthcare systems, Markov decision processes, optimization, simulation, and machine learning.

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