PIMS LUNCHBOX LECTURE
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12:00 pm

University of Calgary
Downtown Campus

MANAGING PATIENTS WITH CHRONIC CONDITIONS

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Chronic disease management often involves sequential decisions that have long-term implications. Those decisions are based on high dimensional information, which pose a problem for traditional modeling paradigms. In some key instances, the disease dynamics might not be known, but instead are learned as new information becomes available.

As a first step, we will describe some of the ongoing research modeling medical decisions of patients with chronic conditions. Key to the models developed is the incorporation of the individual patient's disease dynamics into the parameterization of the models of the disease state evolution. Model conception and validation is described, as well as the role of multidisciplinary collaborations in ensuring practical impact of this work.

Dr. Mariel Lavieri is an Associate Professor in the Department of Industrial and Operations Engineering at the University of Michigan. She has bachelor's degrees in Industrial and Systems Engineering and Statistics and a minor in String Bass Performance from the University of Florida. She holds a Masters and PhD in Management Science from the University of British Columbia. In her work, she applies operations research to healthcare topics. Among others, Dr. Lavieri has developed dynamic programming, stochastic control, and continuous, partially observable state space models to guide screening, monitoring and treatment decisions of chronic disease patients. She has also created models for health workforce and capacity planning. Dr. Lavieri is the recipient of the 2016 National Science Foundation CAREER Award, the 2013 International Conference on Operations Research Young Participant with Most Practical Impact Award, and the 2006 Bonder Scholarship.

WEBSITE & REGISTRATION: http://www.pims.math.ca/industrial-event/170223-plldml
(A light lunch will be provided. Please RSVP)

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