

INDUSTRIAL & SYSTEMS ENGINEERING SEMINAR

Wednesday, November 9

3:15 PM – Refreshments before the seminar

3:30 PM – Graduate Seminar

Mechanical Engineering Room 4125 A & B



Mitigating Inequities in Liver Allocation via Revised Health Reporting Frequencies

Professor Lisa Maillart
University of Pittsburgh

End stage liver disease patients awaiting liver transplantation are ranked by an illness severity index called MELD score. The frequency with which patients are required to report their MELD scores depends on their last reported MELD score, however, patients may choose to report their scores as often as they wish. We formulate an infinite horizon MDP where in each period, the patient chooses to either transplant if a suitable organ is available, report their current MELD score or do nothing. In addition to deriving several structural results, we numerically assess the degree to which an individual patient can benefit from the flexible updating scheme and how the resulting inequities can be mitigated through revised reporting frequency requirements.

Bio: Lisa Maillart is an Associate Professor in the Industrial Engineering Department at the University of Pittsburgh. Prior to joining the faculty at Pitt, she served on the faculty of the Department of Operations in the Weatherhead School of Management at Case Western Reserve University. She received her M.S. and B.S. in industrial and systems engineering from Virginia Tech, and her Ph.D. in industrial and operations engineering from the University of Michigan. Her primary research interest is in sequential decision making under uncertainty, with applications in medical decision making and maintenance optimization. She is a member of INFORMS, SMDM and IIE.

**FOR MORE INFORMATION ON PROFESSOR MAILLART'S RESEARCH, PLEASE VISIT:
<http://www.engineering.pitt.edu/ProfessionalProfile.aspx?id=2147485465>**