

Join us on **October 1, 2021, from 2:00 PM – 4:00 PM in RAWL 3082**

Research Colloquium on “Translating Company Engagements into Research”

**Hosted by
Office of the Associate Dean of Research and Partnerships**

Research Spotlight Presentations



“A New Era of Care Delivery: Machine-learning enhanced Hospital Workload Prediction and Resource Allocation for COVID19 and Beyond”

Pengyi Shi
Assistant Professor
Supply Chain and Operation Management



“The Nationwide | Purdue Veterinary Price Index and Estimating the Effect of Pet Health Insurance on Veterinary Spending and Mortality”

Kevin Mumford
Associate Professor of Economics
Kozuch Director, PURCE
Economics

**Panel Session on “Strategies for Translating Company Engagements into Research”
moderated by Karthik Kannan**



Michael Campion
Herman C. Krannert Distinguished Professor
of Management
Organizational Behavior/Human Resources



George Shanthikumar
Richard E. Dauch Chair in Manufacturing
and Operations Management
Supply Chain and Operations Management

A New Era of Care Delivery: Machine-learning enhanced Hospital Workload Prediction and Resource Allocation for COVID19 and Beyond

By Pengyi Shi

Abstract:

Out of the COVID-19 pandemic, the research team has closely worked with IU Health, the largest hospital system in the state of Indiana, to develop and deploy high-impact analytics, which require innovative development to overcome challenges associated with severe data-scarcity, unobservable and rapidly evolving system dynamics. In the new era of co-living with the endemic COVID-19, the collaboration is now transitioning into further development of data **analytics, stochastic modeling, and decision tools** for everyday care delivery, with close monitoring of future pandemic and endemic outbreaks. The project involves integrating disease spread forecasting and patient flow models to predict patient workload in hospitals and optimize resource allocation along the lines of nurse hiring and staffing, equipment usage, and surgical scheduling.

The Nationwide | Purdue Veterinary Price Index and Estimating the Effect of Pet Health Insurance on Veterinary Spending and Mortality

By Kevin Mumford

Abstract:

The Veterinary Price Index uses over 30 million veterinary claims to track prices over the past decade and has become a benchmark for the veterinary industry. Using this data, Professor Mumford and his coauthors have contributed to the literature on end-of-life medical spending. Using an identification strategy in which arrival of insurance benefits is quasi-random based on the timing of pet health insurance benefit renewal, the paper focus on how the availability of health insurance reimbursement funds affects spending, veterinary visits, and mortality over a two-year period following a serious cancer diagnosis. Increases in the generosity of health insurance reimbursement causes increases in both spending and veterinary visits

Agenda

1:45 PM – Beverages available outside RAWL 3082

2:00 PM – Opening Remarks

2:05 PM – Research Spotlight – Pengyi Shi

2:20 PM – Q & A

2:25 PM – Research Spotlight – Kevin Mumford

2:40 PM – Q & A

2:45 PM – Panel Session Moderated by Karthik Kannan

featuring Michael Campion and George Shanthikumar

3:45 PM – Nuts & Bolts of Conversations with Companies –

Logan Jordan, Matt Lawrence and Steve Dunlop

4:00 PM – Networking over refreshments, available outside KRAN 3082

Kran 2011 available for seating