

# 2017 Healthcare Engineering & Patient Safety Symposium

Monday, November 6th

5 – 7:30 p.m.

Robert H. Lurie Engineering Center  
3rd & 4th Floors



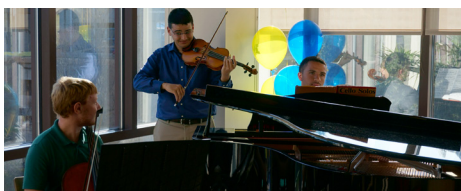
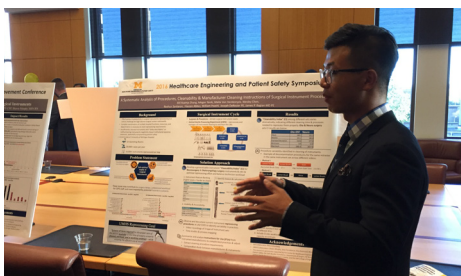
Learn more about how the Center for Healthcare Engineering and Patient Safety (CHEPS) is improving the safety and quality of healthcare delivery by identifying, fostering, and promoting collaborative projects across the University.

Posters will represent collaborations between:

- College of Engineering
- Medical School
- School of Public Health
- School of Nursing
- Michigan Medicine
- and more...







## Masco Commons (3rd Floor)

**The Center for Healthcare Engineering & Patient Safety**  
CHEPS

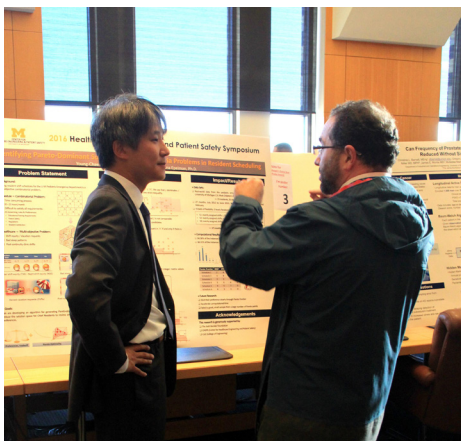
**Master's Concentration in Healthcare Engineering & Patient Safety**  
CHEPS

**The Institute for Healthcare Policy and Innovation**  
IHPI

**Michigan Institute for Clinical and Health Research**  
MICHR

**Seth Bonder**  
CHEPS and The Seth Bonder Foundation

**The Seth Bonder Foundation**  
CHEPS and The Seth Bonder Foundation



## Johnson Rooms (3rd Floor)

**A Dynamic Approach to Improve Chemotherapy Pre-mix Policies**

Donald Richardson, Hwon Tak, Matthew See, Amy Cohn

**A Stochastic Programming Approach to Determine Decision Boundaries for Medical Diagnosis**

Gian-Gabriel P. Garcia, Mariel S. Lavieri, Ruiwei Jiang, Michael McCrea, Thomas W. McAllister, Steven P. Broglio, CARE Consortium Investigators

**Annual Block Scheduling for Medical Residents**

Amy Cohn, Erick Dagenais, Junhong Guo, Daniel Huang, William Pozehl

**Aperture Control for VMAT Planning Systems**

Wilmer E. Henao, Marina Epelman, Edwin Romeijn, Kelly Younge, Carlos Anderson, Martha Matuszak

**Augmenting Cancer Surveillance with Machine Learning**

Erkin Otles, John Wei, Brian Denton

**Challenges with Data Collection in Methods to Reduce Clinic Wait Times**

Rachel Moeckel, Paula Anne Newman-Casey, Amy Cohn

**Data-Driven Tools for Patient Risk Stratification for ARDS**

Student Authors: Daniel Zeiber, Tejas Prahlad, Faculty Mentors: Michael Sjoding, Jenna Wiens

**Dermatology Residency Shift Scheduling Tool**

William Pozehl, Justin Moss, Justin Rogers, Samantha Roth, Chloe Smither, Amy Cohn

**M-Safety P1: Improving Awareness of Catheters to Reduce Hospital-Acquired Infection**

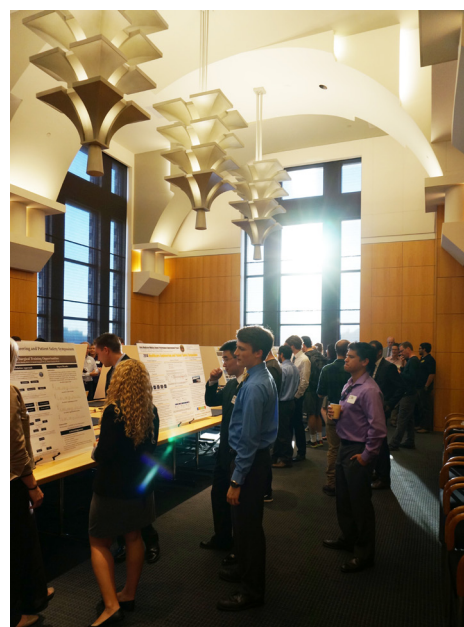
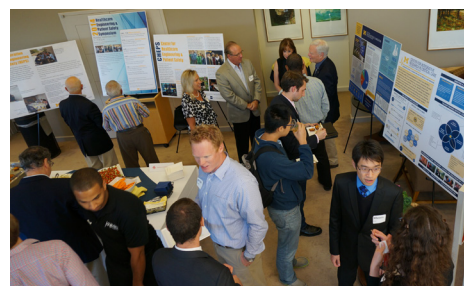
Dale Mallette, Ian McKenzie, Matt See, Lauren Hirth, Roshun Sankaran, Jessica Ameling, Amy Cohn, Jennifer Meddings

**Trust in Robotic Assistance**

X. Jessie Yang

**Using Lean Tools to Identify Opportunities for Improvement in the Michigan Medicine Children's Emergency Services**

Prashant Mahajan, Nicole Sroufe, Kelly Baird-Cox, Gagan Gupta, Anavir Shermon, Emily Smith, Hailey Willett



## GM Room (4th Floor)

### Analyzing the Variability in Colonoscopy Appointments Using a VBA-Based Tool to Help in Improving the Schedule

Bassel Salka, Daniel Huang, Trevor Hoffman, Stephanie See, Amy Cohn, Jacob Kurlander, Sameer Saini, Karmel Shehadeh

### CogPod: Patient Safety Enhancement and Cognitive Labor

Robert Adams, John Hyun Hang Cho, Yixue Wang, Javiera Oyarzun Balut, Swati Goel, Carlos Pompeo, Suzanne Winter, Amy Cohn, Sanjay Saint, Vineet Chopra

### Drug Shortages: A Supply Chain Analysis with Implications for Policy

Emily L. Tucker, Mark S. Daskin, Burgunda V. Sweet, Wallace J. Hopp

### Evaluating Lean as an Implementation Approach in ED-SAFE 2

Sharon A. Johnson, Lori Pelletier, Celine Larkin, Edwin D. Boudreaux

### Focused Ethnography to Improve Diagnosis in Teaching Hospitals: Introducing the Michigan Model of Diagnosis

Vineet Chopra, Molly Harrod, Suzanne Winter, Jane Forman, Martha Quinn, Sarah Krein, Karen E. Fowler, Hardeep Singh, Sanjay Saint

### Improving the Patient Experience: Classifying Patient Wait Times

Trevor Hoffman, Hanan Al-Awadhi, Rachel Moeckel, Erick Dagenais, Paula Anne Newman-Casey, Leslie Niziol, John Musser, Abhilash Rao, Henry Ellis, Nish Patel, Grace Trinidad, Amy Cohn

### Introduction of a Standardized Decontamination Process in Central Sterile Processing Departments

William Pozehl, Lauren Hirth, Dale Mallette, Ian McKenzie, Wesley Chen, Joseph DeRosier, James Bagian

### Medicare's Merit-based Incentive Payment System (MIPS): Will Cost Measures be Reliable?

Paige E VonAchen, Rodney A. Hayward, Edward Norton, Brian Denton, Chad Ellimoottil

### Optimizing Resident Call Assignments

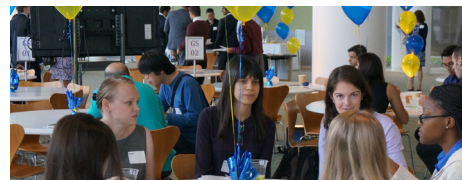
Kevin Li, Bassel Salka, Steven Macpherson, Dale Mallette, Anna Learis, William Pozehl, Amy Cohn, Luke O. Pesonen

### Predictive Analytics for Prostate Cancer Treatment Decision Making

Bo Qu, Karandeep Singh, Selin Merdan, Zheng Zhang, Greg Auffenberg, Todd Morgan, Samuel Kaffenberger, Brian T. Denton

### Reinventing Urban Transportation and Mobility

Joshua Lustig, Kevin Li, Tawanna Dillahunt, Patrick Carter, Justin Rogers, James McAuliffe, Jingxue Xu, John Cima, William Pozehl, Amy Cohn



## Schedule of Events

5:00 – 7:30

Refreshments, posters from across the university & beyond, networking.

6:00

Remarks

7:00

Ballots due for Best Poster Award. Turn in at registration table.

7:15

Poster award announcement, twitter raffle prize, closing remarks.



## Poster Voting & Raffle

Turn in your ballot at the registration table before 7:00 p.m. to vote for the People's Choice Best Poster Award!

Tweet with hashtag #cheps2017 for a chance to win a raffle prize.

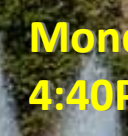


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# Providing Better Healthcare through Systems Engineering: Seminars and Discussions

**Mondays Fall 2017**  
**4:40PM 1123 LBME**



September 11	"Identifying Optimal Antibiotic Regimens for TB Treatment"	Joseph Cicchese, PhD candidate U-M Linderman Research Group
September 18	"Secure Messaging and Personal Health Records: Designing Customer-Facing Processes"	Sharon Johnson, PhD, Prof. Worcester Polytechnic Institute
September 25	"The Bloodmobile Routing Problem"	Grisselle Centeno, PhD, Assoc. Prof. U of South Florida
October 2	"Nurses' Trust in Robotic Assistance on the Labor Floor"	X. Jessie Yang, Asst. Prof., U-M IOE
October 9	"Using Decision Modeling to Inform Newborn Screening Policy Decisions for Pompe Disease: A Case Study"	Lisa Prosser, PhD, Professor Michigan Medicine Pediatrics & SPH
<b>Please note: There will be no seminars on the Mondays of October 16 and October 23 due to Fall Break and INFORMS.</b>		
October 30	"Deep Monitoring Chronic Disease in Underserved and Remote Populations"	David T. Burke, PhD, Professor Michigan Medicine Human Genetics
November 6	<b>5th Annual Symposium on Healthcare Engineering and Patient Safety, 5-7:30PM *time change!</b>	<b>3rd/4th flrs Lurie Engin. Center 1221 Beal Ave *location change!</b>
November 13	"Patient Safety: Challenges and Ways to Overcome Them"	Jim Bagian, MD, U-M IOE/CHEPS
November 20	"Health Systems Engineering and Implementation Science: Using the Best of Both Worlds to Standardize Periprocedural Anticoagulation"	Geoffrey Barnes, MD, MSc Michigan Medicine Cardiology
November 27	"From Big Data to Small Decisions: Fulfilling the Potential of Precision Health"	Sachin Kheterpal, MD, MBA Michigan Medicine Anesthesiology
December 4	"Block Scheduling for Medical Residents"	Amy Cohn, PhD, U-M IOE/CHEPS Billy Pozehl, MSE, U-M IOE/CHEPS Garth Strohbehn, MD, Chief Res.
December 11	"Multi-dimensional, Highly Time-resolved Big Data Approach for Disease Prediction"	Sung Won Choi, MD, MS, Mich Med Jenna Wiens, PhD, Asst. Prof., CSE

**Please note on location:** 1123 LBME is room 1123 in the Ann & Robert H. Lurie Biomedical Engineering Building (LBME). Street address is 1101 Beal Ave., map and directions: <http://www.bme.umich.edu/about/directions.php>.

This seminar series is presented by the U-M Center for Healthcare Engineering and Patient Safety (CHEPS): Our mission is to improve the safety and quality of healthcare delivery through a multi-disciplinary, systems-engineering approach.

For additional information and to be added to the weekly e-mail for the series, please contact [genekim@umich.edu](mailto:genekim@umich.edu).



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**HEALTHCARE ENGINEERING & PATIENT SAFETY**  
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