

# Healthcare Engineering & Patient Safety Symposium

Monday, November 18th

5 – 7:30 p.m.

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



Learn more about how the Center for Healthcare Engineering & 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!





## Johnson Rooms (3rd Floor)

### Automating Trauma Call Scheduling for Short and Long-Term Gains

Hannah Strat, Kristine Wang, Yizhou Cao, Daniel Cullen, Jacob Martin, Nicholas Zacharek, William Pozehl, Amy Cohn, Penny Trinkle, Krishnan Raghavendran



### Clearing Bottlenecks on the Road to Cardiac Intensive Care

Luke Liu, Amanda Moreno-Hernandez, Harini Pennathur, Donald Richardson, Ziqi Wang, Shuhao Zho, Amy Cohn, Hitinder Gurm

## Masco Commons (3rd Floor)

The Center for Healthcare Engineering & Patient Safety  
CHEPS

Immersed: Practice Your Purpose  
Immersed

Master's Concentration in Healthcare Engineering & Patient Safety  
CHEPS

Seth Bonder  
CHEPS and The Seth Bonder Foundation

The Seth Bonder Foundation  
CHEPS and The Seth Bonder Foundation

Walt Hancock  
CHEPS and Don Chaffin



### Into the Wild: Transitioning from Recognizing Mood in Clinical Interactions to Personal Conversations for Individuals with Bipolar Disorder

Katie Matton, Melvin G. McInnis, Emily Mower Provost

### Lead, Change, Transform Health with Health Infrastructures and Learning Systems

Learning Health Sciences

### Next Generation Care Delivery at Johns Hopkins University Applied Physics Lab

Donald Richardson, Bassel Salka

### One Size Does Not Fit All: How Do We Design Surgical Training Programs to Recognize That Different Residents Achieve Competency at Different Rates?

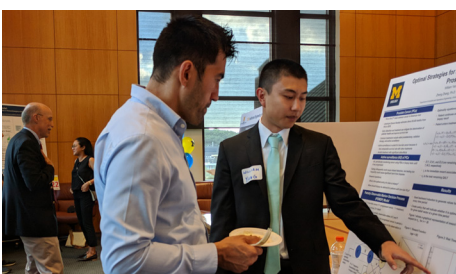
Fumiya Abe-Nornes, Dean Golan, Hannah Strat, Simran Malik, Yin Yin, Amy Cohn, Brian George, Rishindra Reddy

### A Robust Multi-Modal Approach to Diagnosing Acute Cardiopulmonary Conditions

Sarah Jabbour, David Fouhey, Michael W. Sjoding, Jenna Wiens

### Using Technicians to Screen for Eye Disease Can Improve Access to Care for Veterans

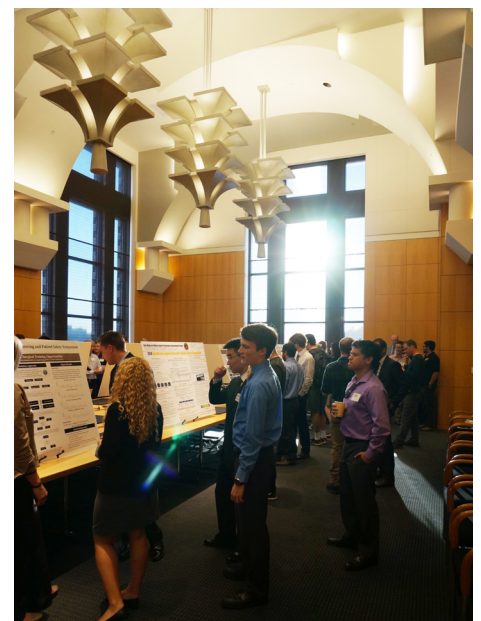
Kate Burns, Michelle Chen, Malcom



Hudson, Matthew Levenson, Adam VanDeusen, Carolyn Wu, Amy Cohn, April Maa

### When Can Telehealth Enable Patients to Better Access Specialty Care?

Tarek Bsat, Michelle Chen, Simran Malik, Hannah Heberle-Rose, Pushpendra Singh, Adam VanDeusen, Nicholas Zacharek, Amy Cohn, Megan Adams, Jacob Kurlander, Samir Saini



## GM Room (4th Floor)

### **Cleaned, Sterilized, Delivered: Ensuring All Instruments Needed for Surgery Arrive On Time and Ready for Use**

Kate Burns, Daniel Cullen, Dean Golan, Luke Liu, Isaac Smith, Hannah Strat, Yin Yin, William Pozehl, Joseph DeRosier, James Bagian

### **Democratizing EHR Analyses: A Comprehensive, Generalizable Pipeline for Learning from Clinical Data**

Shengpu Tang, Parmida Davarmanesh, Yanmeng Song, Danai Koutra, Michael W. Sjoding, Jenna Wiens

### **Dynamic Prediction of Patient Outcomes: A Deep Learning Approach**

Erkin Ötles, Haozhu Wang, Jon Seymour, Jenna Wiens, Brian Denton

### **Making Connections, Discovering Solutions for Healthier Lives**

Precision Health

### **The More We Know About Our Patients the More We Can Reduce The Risk of Harm**

Kate Burns, Daniel Cullen, Theodore Endresen, Victoria Glunt, Harini Pennathur, Kristine Wang, Julia Warner, Amy Cohn, Jessica Ameling, Jennifer Meddings

### **Reducing Discharge to Extended Care Facility Does Not Increase Readmission in Knee and Hip Arthroplasty Patients**

Richard Hughes, Huiyong Zheng, Brian Richard Hallstrom



### **Striking a Balance When Scheduling Colonoscopy Patients**

Victoria Glunt, Trevor Hoffman, Jakob Kiel-Locey, Jake Martin, Pushpendra Singh, Carolyn Wu, Karmel Shehadeh, Julia Warner, Amy Cohn, Jacob Kurlander, Sameer Saini

### **You Can't Always Get What You Want...Especially If You Don't Know What That Is. Lessons in Building Annual Residency Block Schedules**

Tarek Bsat, Daniel Cao, Junhong Guo, Lea Harris, Nicholas Zacharek, Jake Martin, Theodore Endresen, William Pozehl, Amy Cohn, Heather Burrows, Sarah Hartley, Michael Lukela

### **#Safe\_Care Initiative**

Hanan Alawadhi



## 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 #cheps2019 for a chance to win a raffle prize.

## QR Codes

Scan QR codes on posters for more information on a project!



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[cheps.engin.umich.edu](http://cheps.engin.umich.edu)



# Providing Better Healthcare Through Systems Engineering: Seminars and Discussions

Mondays, Fall 2019  
4:30PM 1123 LBME



September 9	Driving Innovation, Implementation, and Sustainability in a Learning Health System	Amy Kilbourne, PhD, MPH <i>University of Michigan</i>
September 16	Smartphones Medicalized, with Data Analytics for Complex Diseases Management	Shuai Huang, PhD <i>University of Washington</i>
September 23	The Impact of Communication, Coordination and OR Design on Surgical Patient Flow and Safety	Kevin Taaffe, PhD <i>Clemson University</i>
September 30	Embedding Patient Safety into the Fabric of an Organization: Critical Elements to Make it Happen	Jim Bagian, MD <i>University of Michigan—CHEPS</i>
October 7	Human-Centered Computing: Using Speech to Understand Behavior	Emily Mower Provost, PhD <i>University of Michigan—EECS</i>
There will be no seminar on Monday October 14 due to Fall Break.		
There will be no seminar on Monday October 21 due to the INFORMS Conference.		
October 28	Applying Systems Engineering to Ensure Military Readiness and Health	Katie Esper, MPH, MHCDS <i>Johns Hopkins APL</i>
November 4	Improving Access to Medicines in Low- and Middle-Income Countries	Michael Krautmann, MSE <i>WDI at University of Michigan</i>
November 11	Ambulance Location and Coverage Problems in Emerging Economies	Lavanya Marla, PhD <i>University of Illinois</i>
November 18	Symposium on Healthcare Engineering and Patient Safety 5 — 7:30 PM <b>*TIME CHANGE</b>	3rd/4th floors Lurie Engin. Center 1221 Beal Ave <b>*LOCATION CHANGE</b>
November 25	Managing Virtual Appointments in Chronic Care	Armagan Bayram, PhD <i>University of Michigan</i>
December 2	Using Wearable Motion Sensors for Augmenting Occupational Therapy Assessment	Leia Stirling, PhD <i>University of Michigan</i>
December 9	Addressing Multi-criteria Objective Functions in Healthcare Provider Scheduling Projects	Amy Cohn, PhD <i>University of Michigan—IOE/CHEPS</i> Krishnan Raghavendran, MBBS <i>Michigan Medicine</i>

1123 LBME is room 1123 in the Ann & Robert H. Lurie Biomedical Engineering Building (LBME). The street address is 1101 Beal Avenue. A map and directions are available at: <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).