

4th Workshop on Data Mining for Medical Informatics

Causal Inference for Health Data Analytics

November 4, 2017

Workshops on Data Mining for Medical Informatics

Sponsored by the AMIA Knowledge Discovery and Data Mining Working Group

1. 2014: Electronic Phenotyping
2. 2015: Predictive Analytics
3. 2016: Learning Health
4. 2017: Causal Inference <http://www.dmmh.org/dmmi17>

Morning Agenda

	Type	Time	Presenter	Title
	Opening	8:30-8:35	Eileen Koski	KDDM WG Opening Remarks
	Welcome	8:35-8:45	Kenney Ng	Welcome
	Invited Talk	8:45-9:30	Miguel Hernan	An algorithm for causal inference from observational data
Methods	Long Paper	9:30-9:45	Erich Kummerfeld	A New Method for Estimating Causal Model Learning Accuracy
	Long Paper	9:45-10:00	Mahdi Naeini	An Assessment of the Calibration of Causal Relationships Learned Using RFCI and Bootstrapping
	Long Paper	10:00-10:15	Zach Shahn	Self-Controlled Structural Nested Mean Models
	Coffee Break	10:15-10:30	Break	Coffee Break
	Invited Talk	10:30-11:15	David Danks	Causal discovery from time series data: From theory to application
Applications	Long Paper	11:15-11:30	Yanick Brice	Meaningful Use of Electronic Health Record and Patient Utilization Outcomes within 30 Days of Hospital Discharge
	Long Paper	11:30-11:45	Jinghe Zhang	Exploring the Causal Relationships between Initial Opioid Prescriptions and Outcomes
	Short Paper	11:45-12:00	Victor Castro	Identifying Causal Effects of Medication Exposures from Electronic Health Record Data with i2b2
	Lunch	12:00-1:00	Break	Lunch Break

Afternoon Agenda

	Type	Time	Presenter	Title
	Invited Talk	1:00-1:45	Constantin Aliferis	Causal Feature Selection
Applications	Long Paper	1:45-2:00	Scott Malec	Using the Literature to Construct Causal Models for Pharmacovigilance
	Long Paper	2:00-2:15	Subramani Mani	Causal Discovery from Pediatric Infectious Disease Protein Biomarker Data
	Long Paper	2:15-2:30	Ali Bakhtiari	Inferring immune cell subtype interactions from gene expression of immune related genes in tumor microenvironment
	Coffee Break	2:30-3:00	Break	Coffee Break
Apps + Tools	Short Paper	3:00-3:15	Ryan Sandefer	Discovering relationships in consumer use of personal health information: A causal modeling approach
	Long Paper	3:15-3:30	Jeremy Espino	The Causal Modeling and Discovery Software Suite
	Invited Talk	3:30-4:15	Gregory Cooper	Graphical Causal Discovery from Big Biomedical Data
	Closing	4:15-4:20	Kenney Ng	Closing Remarks