



## 2017 AAAI Joint Workshop on Health Intelligence (W3PHIAI 2017)

**Saturday, February 4 and Sunday, February 5, in Union Square 5/6** on the **Fourth** Floor of **Hilton San Francisco** Union Square.

### Workshop Programme:

#### Saturday February 4<sup>th</sup>

**9:15am - 9:30am**

Opening Remarks (Martin Michalowski & Arash Shaban-Nejad)

**9:30am - 10:30am**

Invited Talk: **Rumi Chunara**

"Unstructured Data and Population-level Public Health"

**10:30am - 11:00am**

Coffee Break

**11:00am - 12:00pm (20 minutes per paper, 15-17 minute presentation and 3-5 minutes for questions)**

#### Session 1: Population Health (Session Chair: Arash Shaban-Nejad)

1. Multidimensional and Longitudinal Indicators in Population Health  
*Guido Antonio, Yu T Luo, Aman Verma, David A Stephens, and David L Buckeridge*
2. 420 Friendly: Revealing Marijuana Use via Craigslist Rental Ads  
*Anh Nguyen, Long Nguyen, Dong Nguyen, Uyen Le, and Tuan Tran*
3. Examining Patterns of Influenza Vaccination in Social Media  
*Xiaolei Huang, Michael C. Smith, Michael Paul, Dmytro Ryzhkov, Sandra Quinn, David Broniatowski, and Mark Dredze*

**12:00pm - 1:45pm**

Lunch (on your own)

**1:45 pm - 2:45 pm**

Invited Talk: **Urmimala Sarkar**

“Health IRL: what we can learn from social media”

**2:50 pm - 3:30 pm**

Panel: *Identifying the Synergy between Personalized and Population Health*

Panel Members:

**David L. Buckeridge**, McGill University (Moderator)

**Deborah L. McGuinness**, Rensselaer Polytechnic Institute

**José Luis Ambite**, University of Southern California

**Rumi Chunara**, New York University

**3:30pm - 4:00pm**

Coffee Break

**4:00pm - 5:20pm (20 minutes per paper, 15-17 minute presentation and 3-5 minutes for questions)**

Session 2: Assessment (Session Chair: Martin Michalowski)

1. Intelligent and Affectively Aligned Evaluation of Online Health Information for Older Adults  
*Julie Robillard, Areej Alhothali, Sunjay Varma, and Jesse Hoey*
2. "Jerk" or "Judgemental"? Patient Perceptions of Male versus Female Physicians in Online Reviews  
*Byron Wallace and Michael Paul*
3. Event-based Structural Change Detection in Urban-scale Contact Network  
*Yuan Bai, Bo Yang, and Zhanwei Du*
4. Skin Cancer Detection and Tracking using Data Synthesis and Deep Learning  
*Yunzhu Li, Andre Esteva, Brett Kuprel, Sebastian Thrun, Justin Ko, and Rob Novoa*

**Sunday February 5<sup>th</sup>**

**9:30am - 10:30am**

Invited Talk: **Mor Peleg**

"Engaging patients in their health care: experiences from the MobiGuide Project"

**10:30am - 11:00am**

Coffee Break

**11:00am - 12:00pm (20 minutes per paper, 15-17 minute presentation and 3-5 minutes for questions)**

Session 3: Personalized Systems (Session Chair: Byron Wallace)

1. AFGuide System to Support Personalized Management of Atrial Fibrillation  
*Martin Michalowski, Wojtek Michalowski, Dympna O'Sullivan, Szymon Wilk, and Marc Carrier*
2. Toward A Collaborative AI Framework for Assistive Dementia Care  
*Tze-Yun Leong*
3. A Portable Upper Extremity Rehabilitation Device  
*Ifeoma Nwogu, Smriti Jha, Lora Cavuoto, Heamchand Subrayan, and Jeanne Langan*

**12:00pm - 1:45pm**

Lunch (on your own)

**1:45pm - 2:45pm**

Invited Talk: **John Holmes**

Talk title: "AI-driven Approaches to Data Integration"

**2:45pm - 3:25 pm (20 minutes per paper, 15-17 minute presentation and 3-5 minutes for questions)**

Session 4: Learning 1 (Session Chair: Arash Shaban-Nejad)

1. Personal Sleep Pattern Visualization via Clustering on Sound Data  
*Hongle Wu, Takafumi Kato, Tomomi Yamada, Masayuki Numao, and Ken-Ichi Fukui*
2. Understanding and Predicting Multiple Risky Behaviors from Social Media  
*Yiheng Zhou, Cassie Glenn, and Jiebo Luo*

**3:30 pm - 04:00 pm**

Coffee Break

**4:00 pm - 4:40 pm (20 minutes per paper, 15-17 minute presentation and 3-5 minutes for questions)**

Session 5: Learning 2 (Session Chair: Martin Michalowski)

1. A Deep Multi-task Learning Approach to Skin Lesion Classification  
*Haofu Liao and Jiebo Luo*
2. Clustering-Aided Approach for Predicting Patient Outcomes with Application to Elderly Healthcare in Ireland  
*Mahmoud Elbattah and Owen Molloy*

**4:40 pm - 5:00 pm**

Closing remarks / discussion