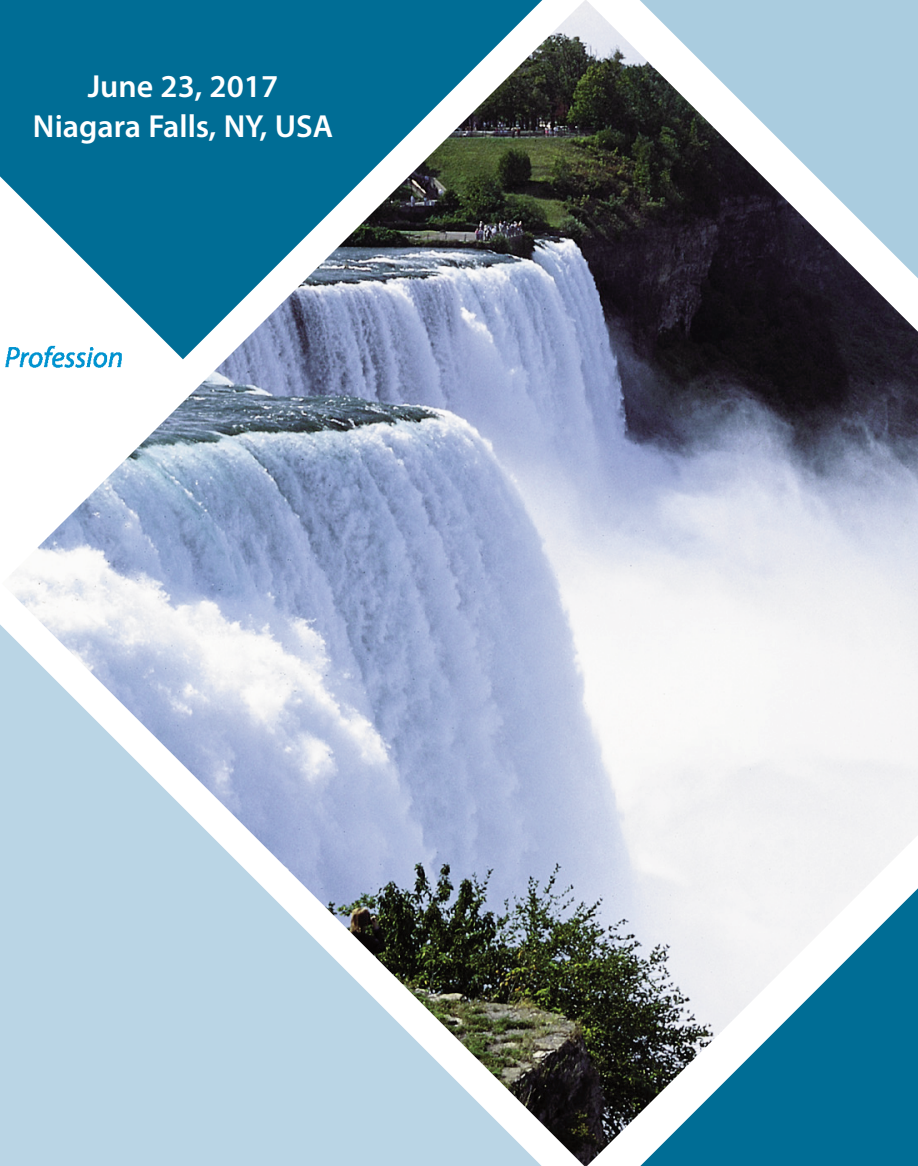


June 23, 2017
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Advancing Computing as a Science & Profession



DigitalBiomarkers'17

Proceedings of the 1st Workshop on
Digital Biomarkers

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DigitalBioMarker'17: Foreword

It is our great pleasure to welcome you to the *ACM 1st workshop on Digital Biomarkers 2017 (DigitalBioMarkers'17)*. The workshop will bring academics, industry researchers and medical researchers together to address the modeling, testing, and validation of new digital biomarkers for evaluating and predicting onset of diseases/health conditions, response to treatments, and effects of interventions. The workshop aims to facilitate a systematic discussion among experts from different knowledge domains including mobile sensing, systems, machine learning, medicine and health sciences in order to (i) identify new digital biomarkers relevant to behavioral, chronic, and degenerative conditions, (ii) identify the key shortcomings of the existing mobile and wearable sensor systems, and research platforms (e.g., ResearchKit™ and ResearchStack) for digital biomarker inference in terms of scalability, customizability, and sensing affordances, (iii) find realistic solutions towards building new digital biomarker evidence engine leveraging sensor data from a variety of mobile systems (e.g., smartphones, wearables, IoT devices, and other relevant digital traces), (iv) identify key data collection, labeling, testing and validation methodologies for development of digital biomarkers.

The call for papers attracted highly relevant submissions from around the world. The program committee accepted 6 short papers out of 9 submissions. In addition to the presentations of the 6 accepted papers, the workshop will feature one a morning keynote and an afternoon panel session.

- Keynote: "*A Quantum of Solace: Digital Traces and Mental Health*", Prof. Vincent M. B. Silenzio, University of Rochester School of Medicine & Dentistry
- *Designing studies for feasibility testing, refinement and validation of digital biomarkers Panel Session*

Putting together *DigitalBioMarkers'17* was a team effort. We first thank the authors for providing the content of the program. We are grateful to the program committee, who rapidly reviewed papers and provided feedback for authors. Finally, we thank the workshop co-chairs of MobiSys 2017, Dr. Tam Vu and Dr. Ben Greenstein for helping us throughout the process of organizing this workshop. We are also thankful to ACM Sigmobility, and the organizers of MobiSys 2017 for their support.

We hope that you will find this program interesting and thought-provoking and that the workshop will provide you with a valuable opportunity to share ideas with other researchers and practitioners from institutions around the world.

Deborah Estrin

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DigitalBioMarkers 2017 Workshop Organization

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