RTI International Presentations at BigSurv18

Conference Presentation Schedule

Session Information	Thursday, 25 October
Adaptive Survey Design 13:00–16:30 Room: 40.S14	*Short course taught by **Andy Peytchev***
Big Data Processing for Social Science: An Introduction to Apache Spark 13:00–16:30 Room: 40.S03	*Short course taught **Ian Thomas***

Session Information	Friday, 26 October
Leveraging Big Data for Improving Health Research… the Initial Visit 9:45–11:15 Room: 40.105	*Session chaired by **Charlie Knott***
Big Data, Little Error? Assessing the Total Error of Survey Estimates in the Era of Big Data 9:45–11:15 Room: 40.109	*Session chaired by **Ashley Amaya*** Total Error Frameworks for Hybrid Estimation and Their Applications **Paul Biemer, Ashley Amaya** Combining Administrative Data and Survey Samples for the Intelligent User **Phillip Kott**
Are the Machines Making the Mark? Applications to Compare Traditional and Machine Learning Models 9:45–11:15 Room: 40.035 S. Graus	Comparison of Simple and Complex Predictive Models Applied to the National Surveys on Drug Use and Health. Example of Multiple Visits to Emergency Departments **Georgiy Bobashev**, *Li-Tzy Wu*
Population Estimates for Small Geographic Areas: Can We Do a Better Job? 11:30–13:00 Room: 40.035 S. Graus	*Session chaired by **Safaa Amer*** Residential Scene Classification for GeoSampling in Developing Countries Using Deep Convolutional Neural Networks on High-Resolution Satellite Imagery **Robert Chew, Safaa Amer, Kasey Jones, Jennifer Unangst, James Cajka, Justine Allpress,** *Mark Bruhn* Household Detection Within Gridded Population Area Units: Producing Small Area Population Estimates in GeoSampling **Safaa Amer, James Cajka, Robert Chew, Kasey Jones, Jennifer Unangst, Justine Allpress**
Ethical Considerations for Using Big Data II: Exploring the Relationship Between Ethical Considerations, Reproducibility, and Participation 14:15–15:45 Room: 40.150	*Session chaired by **Rebecca Powell***

RTI researchers appear in bold.

Session Information	Friday, 26 October
Big Data Methods, Small Survey Nonresponse? 14:15–15:45 Room: 40.213	Operational Challenges in Gaining and Maintaining Survey Respondents' Cooperation to Supplement Survey Data with "Big Data" Collected Through a Custom Smartphone Application ***Kristine Wiant, Diana Greene, Joli Brown, Ellen Causey***
Missing Data? No Big Deal Using New Big Data Methods 14:15–15:45 Room: 40.035 S. Graus	*Session chaired by **Paul Biemer*** Motivated Misreporting in Crowdsourcing Tasks of Content Coding, Image Classification, and Surveys ***Stephanie Eckman , Yuli Hsieh, Herschel Sanders, Amanda Smith*** Experiences in FBI's NCS-X NIBRS Estimation Project ***Dan Liao, Marcus Berzofsky, Ian Thomas, Lance Couzens,*** *Alexia Cooper*
Exploring How Responsive Designs Respond to Machine Learning Methods 16:00–17:30 Room: 40.213	Machine Learning in Adaptive Survey Designs: A Bandit Approach ***Rob Chew, Paul Biemer***
The Fourth Paradigm: Moving From Computational Science to Data-Intensive Scientific Discovery? 16:00–17:30 Room: 40.248	*Session chaired by **Craig Hill*** Moving Social Science Into the Fourth Paradigm: Opportunity Abounds ***Craig A. Hill***
Getting Aggressive About Passive Data Collection 16:00–17:30 Room: 40.250	*Session chaired by **Stephanie Eckman*** Combining Survey and Wearable Data on Exercise and Sleep ***Stephanie Eckman, Ashley Amaya, Robert Furberg***
Respondents Responding Well or So I Recall… Exploring Memory, Mode, and Behaviour in Surveys 16:00–17:30 Room: 40.035 S. Grous	Different Strokes for Different Folks: An Assessment of Mode Effects in a Student Population ***Rebecca Powell, Antje Kirchner, Austin Lacy, Johnathan Conzelmann***

Session Information	Saturday, 27 October
Poster Session 2 10:30–11:00 and 15:30–16:00 Room: 30.S02 S. Expo	Predicting Political Behavior and Attitudes Using Digital Trace Data *Ruben Bach, Christoph Kern,* ***Ashley Amaya,*** *Florian Keusch, Frauke Kreuter, Jan Hecht, Jonathan Heinemann*
Socializing with Surveys: Combining Big Data and Survey Data to Measure Public Opinion 9:00–10:30 Room: 40.006	Measuring the Strength of Attitudes in Social Media Data ***Ashley Amaya,*** *Ruben Bach, Frauke Kreuter, Florian Keusch*
Refining Big Data Methods Using Survey Data 11:00–12:30 Room: 40.008	*Session chaired by **Georgiy Bobashev***
Leveraging Big Data for Improving Health Research…the Follow-up Visit 11:00–12:30 Room: 40.012	How to Operationalize Adaptive Sampling Along with Various Big Data PhenotypicNeurologic-Ecological-Genotypic Elements Across a Multi-Site Trauma-Based Prospective Data Collection, the AURORA Cooperative Agreement ***Charlie Knott, Steve Gomori, Mai Nguyen, Sue Pedrazzani, Sridevi Sattaluri, Thomas Walker***
Applying Machine Learning and Automation to Improve Imputation—Replicate	*Session chaired by **Steve Cohen***

RTI researchers appear in bold.

14:00–15:30
Room: 40.010

New Approaches to Augment Sampling Frames II: Leveraging Data Science Methods for Sample Frame Construction
16:00–17:30
Room: 40.008

Using Big Data to Improve Sampling Efficiency
Jamie Ridenhour, Joseph McMichael, Karol Krotki, Howard Speizer

Applying Machine Learning and Automation to Improve Imputation—Replicate II
16:00–17:30
Room: 40.010

AI and Machine Learning Derived Efficiencies for Large Scale Survey Estimation Efforts
Steven Cohen, Jamie Shorey

Big Data = Big Applications: From Data Linkage to Education
16:00–17:30
Room: 40.012

Enriching Education Survey Data with Knowledge Graphs‡
Helen Jang, Jamie Shorey, Peter Baumgartner

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