

**40th IEEE
SARNOFF
SYMPOSIUM**
Newark, New Jersey
Sept. 23-24, 2019

SCHEDULE OF KEYNOTE AND INVITED PRESENTATIONS

MONDAY, SEPTEMBER 23, 2019

08:00-08:45 Breakfast & Registration

08:45-09:00 Opening Remarks and Welcome Messages

09:00-09:20 Optical Stealth Communication based on Amplified Spontaneous Emission Noise

Ben Wu, Assistant Professor
Rowan University

09:20-09:40 Toward Cyber-Physical/Human Systems that are Responsive and Scalable

Jing Li, Assistant Professor, Department of Computer Science
New Jersey Institute of Technology

09:40-10:00 Deep Graph Learning: Techniques and Applications

Haifeng Chen, Head of Data Science and Systems Research Department
NEC Labs America

10:00-10:20 Combinatorial Sleeping Bandits with Fairness Constraints

Bo Ji, Assistant Professor, Department of Computer and Information Sciences
Temple University

09:00– 10:20 Technical Program I – Applications

10:20-10:30 Coffee Break

10:30-11:00 Keynote Presentation

Data for Good: Data Science at Columbia

Jeannette M. Wing, Avaneessians Director of the Data Science Institute and Professor of
Computer Science
Columbia University

11:00-11:20 Achieving Low Latency Mobile Edge Cloud Services in Next-Generation Wireless Networks

Dipankar Raychaudhuri, Distinguished Professor, Electrical & Computer Engineering and
Director, WINLAB (Wireless Information Network Lab)
Rutgers University



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11:20-11:40 Programming tomorrow's 5G networks today – the anatomy of a flexible RAN Intelligent Controller (RIC) and its applications

Rittwik Jana
Director of Inventive Science
AT&T Labs Research

11:40-12:00 Optimizing Service Delivery at the Mobile Network Edge

Leandros Tassiulas
John C. Malone Professor of Electrical Engineering
Yale University

12:00-1:00 Lunch & Networking

Lunch Talk: What did he have in Mind? David Sarnoff's Visions for Wireless Communications

Alexander B. Magoun, Outreach Historian - IEEE History Center
Stevens Institute of Technology

1:00-1:30 Keynote Presentation

New value creation with the Future X Network

Peter Vetter
Head of Access Research lab
Nokia Bell Labs

1:30-1:50 Network Orchestration for 5G

Raquel Morera, Associate Fellow
Verizon

1:50-2:10 Next Generation Automation: Enabling the acceleration of Advanced Technology Adoption

Cengiz Alaettinoglu, Chief Technology Officer of Blue Planet
Ciena

2:10-2:30 Challenges and New Technologies for 5G Millimeter Wave Cellular Systems

Sundeep Rangan, Associate Director
NYU Wireless



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- 2:30-2:50 **Reconfigurable Distributed MIMO for Physical-layer Security in Mobile Networks**
Zygmunt J. Haas, Professor and Distinguished Chair in Computer Science
University of Texas, Dallas
- 2:50-3:10 **Leveraging Quantum Annealing for Large MIMO Processing in Centralized Radio Access Networks**, Kyle Jamieson, Associate Professor, Dept. of Computer Science
Princeton University
- 3:10-3:30 **Eliminate Operational Legacy. Forever.**
Sasha Ratkovic, Co-founder and CTO
Apstra
- 3:30-3:40 **Coffee Break**
- 3:40-4:00 **Chameleon: A Scientific Instrument for Computer Science and Networking Research at Scale**
Paul Ruth, Senior Research Scientist at RENCI
University of North Carolina-Chapel Hill
- 4:00-4:20 **Time-series workloads are different, and implications for a time-series database**
Michael J. Freedman
Professor, Computer Science Department & Co-founder and CTO of Timescale
Princeton University
- 4:20-4:40 **Integrated Access and Backhaul in 5G – Challenges and Opportunities**
Navid Abedini, Senior Staff Systems Engineer
Qualcomm Technologies Inc.
- 4:40-5:00 **5G Virtual RAN Network Architectures – the Realities**
Olufemi (Femi) Adeyemi, Lead LTE Solutions Architect
Fujitsu Network Communications
- 3:40-5:00 **Technical Program II – Resource Allocation**
- 5:00-5:20 **Edge-supported Drones in the Construction Industry**
Padmanabhan Pillai, Senior Research Engineer, Science & Technology Center Cloud Computing
Intel Labs





SCHEDULE OF KEYNOTE AND INVITED PRESENTATIONS

TUESDAY, SEPTEMBER 24, 2019

08:00-09:00 **Breakfast & Registration**

09:00-09:20 **Building Fast and Reliable Services for 5G Networks with Derecho**

Edward Tremel, Department of Computer Science
Cornell University

09:20-09:40 **A Closer Look at NFV Execution Models in Multi-Core Commodity Servers**

Zhi-Li Zhang, Professor, Department of Computer Science and Engineering
University of Minnesota

09:40-10:00 **IEEE Future Networks Initiative Enabling 5G and Beyond**

Ashutosh Dutta, Senior Wireless Research Scientist & Co-Chair, IEEE Future Networks
Johns Hopkins University Applied Physics Labs

10:00-10:20 **AERPAW: Aerial Experimentation and Research Platform for Advanced Wireless**

Rudra Dutta, Professor, Department of Computer Science
North Carolina State University

09:00– 10:20 **Technical Program III – Wireless Networks**

10:20-10:30 **Coffee Break**

10:30-11:00 **Keynote Presentation**

5G and the Role of AI

Jennifer Yates, Assistant Vice President, Inventive Science
AT&T Labs

11:00-11:20 **Mobile Transport for 5G RAN**

Rajesh Chundury, Principal Solutions Manager
Ericsson

11:20-11:40 **Driving Community Engagement as Part of Open Innovation**

Nithya A. Ruff, Head of Open Source Practice
Comcast



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11:40-12:00 Evolution of Cyber-Physical Security

Jonathan M. Smith, Professor of Computer and Information Science & Olga and Alberico Pompa Professor of Engineering and Applied Science
DARPA & University of Pennsylvania

12:00-1:00 Lunch & Networking

Lunch Talk: The Origins of Silicon Valley: Why and How It Happened

Paul Wesling, Life Fellow of the IEEE

1:00-1:30 Keynote Presentation

Practical Steps Towards Self-Driving Networks

Kireeti Kompella, Senior Vice President and Chief Technology Officer (CTO)
Juniper Networks

1:30-1:50 Software Defined Cable Access Network

Nagesh Nandiraju, Executive Director of Network Services and Software
Comcast

1:50-2:10 Key Enablers and Obstacles to a successful 5G deployment

Mark T. Watts, Distinguished Member of the Technical Staff Architect
Verizon Communications

2:10-2:30 5G: Millimeter waves, millisecond delays?

Shivendra S. Panwar, Professor, Electrical and Computer Engineering Department
Tandon School of Engineering (Polytechnic Institute)
New York University

2:30-2:50 Federated Learning for Networking

Anwar Walid, Director of Network Intelligence and Distributed Systems Research
Nokia Bell Labs

2:50-3:10 Network Slicing with ONAP LCM

Cagatay Buyukkoc, Lead ORAN and Access Evolution Architect
AT&T



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3:10-3:30 Challenges and Opportunities of opening the RAN interfaces

Haseeb Akhtar, Principal Solutions Consultant
Ericsson

3:30-3:40 Coffee Break

3:40-4:00 5G Edge Cloud Infrastructure

Steve Vandris, Director for NFV Solutions Planning, Datacenter Solutions Group
Intel Corporation

3:40-5:00 Technical Program IV – Security & Automation

5:00- 5:15 Closing Remarks

