





PRINCETON School of Engineering and Applied Science

NEW FRONTIERS IN WIRELESS SPECTRUM TECHNOLOGY AND POLICY WORKSHOP FINAL AGENDA

FEBRUARY 12, 2021 11:00AM – 4:30PM US EST

SESSION 1 – OPENING SESSION AND KEYNOTES

| 11:00am – 11:15am | Welcoming Remarks | D. Raychaudhuri, Rutgers University Yasaman Ghasempour, Princeton University Tingjun Chen, Columbia University |
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| 11:15am – 11:45am | Keynote Address: Key Drivers and Research Challenges for 6G | Matti Latva-aho, University of Oulu |
| ll:45am – 12:15pm | Keynote Address: Reinventing the Wheel or Something New? | Linda Doyle, Trinity College, Dublin |
| 12:15рм – 12:40рм | Distributed ML for Spectrum Sharing | Waheed Uz Zaman Bajwa, Rutgers University |
| 12:40рм – 1:00рм | Lunch Break | |
| | SESSION 2 – NEW SPECTRUM FRONTIERS AND WIREL | ESS TECHNOLOGIES |
| 1:00pm – 1:30pm | Keynote Address: On Communications Measurements and Modeling in the 5G & Beyond Era | Nada Golmie, NIST |
| 1:30pm - 2:00pm | The Future of Wireless Technologies | Andrea Goldsmith, Princeton University |
| 2:00рм – 2:30рм | Coexistence with Passive Receivers | Marwan Krunz, University of Arizona |
| 2:30pm - 3:00pm | Advances in THz Communications (Talk + Demo) | Ted Rappaport, NYU |
| S | ESSION 3 – SPECTRUM SHARING ARCHITECTURE, PROT | TOCOLS AND POLICIES |
| 3:05pm - 3:30pm | Spectrum Consumption Models | Carlos Caicedo, Syracuse University |
| 3:30рм – 3:55рм | Regulatory Policy Considerations & Spectrum Sharing | Henning Schulzrinne, Columbia University |
| 3:55pm - 4:25pm | Dynamic Spectrum Access Research Using the COSMOS Testbed (Talk + Demo) | Ivan Seskar, Rutgers University |
| 4:25pm - 4:30pm | Closing Remarks | |















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KEYNOTE SPEAKERS



Matti Latva-aho

Academy Professor Matti Latva-aho is one of the world's top researchers in wireless radio data communications. Wireless data communications systems and networks are already central to the effective functioning of society, and their significance is continuing to increase. The capacity of wireless communications networks is ultimately constrained by limited spectrum availability. Under current plans, new spectrum allocations for mobile data communications will only be made at much higher frequency bands than those used at present. This will bring major changes to how future wireless radio

systems should be planned and optimised. Latva-aho's research will help to improve understanding of how the design criteria for future wireless systems will change and what kind of transmission technologies and transmitter/receiver architectures they should use. Matti Latva-aho is Academy Professor in 2017 – 2021 and Director for National 6G Flagship in 2018 - 2026 with a total budget of $251M \in$. Matti Latva-aho has worked on wireless communications research at the University of Oulu since the early 1990s. He was appointed professor of communications engineering in 2000. In 1998 – 2006, he served as the director of the Centre for Wireless Communications (CWC).



Linda Doyle

Linda Doyle is the VP of Research/Dean of Research and professor of Engineering and The Arts at Trinity College, University of Dublin. She was the founding director of CONNECT, a national research center focused on future networks. Her expertise is in the fields of wireless communications, cognitive radio, spectrum management, and creative arts practices. She is a member of the National Broadband Steering Committee in Ireland, and is Chair of the Ofcom Spectrum Advisory Board in the United Kingdom.



Nada Golmie

Nada Golmie received her Ph.D. in computer science from the University of Maryland at College Park. Since 1993, she has been a research engineer at the National Institute of Standards and Technology (NIST). She is currently the chief of the wireless networks division in the Communications Technology Laboratory. Her research in media access control and protocols for wireless networks led to over 100 technical papers presented at professional conferences, journals, and contributed to international standard organizations and industry led consortia. She is the author of "Coexistence in Wireless Networks: Challenges and System-level Solutions in the Unlicensed Bands," published by Cambridge

University Press (2006). She is a member of the NIST Public Safety Communication Research program and leading the efforts on the simulation modeling and evaluation of LTE in support of public safety communications.







