NSF SWIFT/NewSpectrum PI Meeting 2025

Oral and Poster Sessions

Thursday, September 11, 2025

Oral Session 1 (OS-1)

No.	Presenter	Project title
1	Narayan Mandayam (Rutgers Univ.)	SWIFT: Enabling Spectrum Coexistence of 5G mmWave and Passive Weather Sensing
2	Tingjun Chen (Duke Univ.)	Collaborative Research: SWIFT: SHIELD: A Software-Hardware Approach for Spectrum Coexistence with Rapid Interferer Learning, Detection, and Mitigation
3	Charles Baylis (Baylor Univ.)	Collaborative Research: SWIFT: LARGE: Broker-Controlled Coexistence of 5G Wireless Artificially Intelligent Power Amplifier Array (AIPAA) with Passive Weather Radiometers
4	Aveek Dutta (U. at Albany SUNY)	Collaborative Research: SWIFT: Collaborative Interference Cancellation for Radio Astronomy
5	Michele Polese (Northeastern U.)	Collaborative Research: SWIFT-SAT: DASS: Dynamically Adjustable Spectrum Sharing between Ground Communication Networks and Earth Exploration Satellite Systems Above 100 GHz
6	Ali Gurbuz (NC State Univ.)	Collaborative Research: SWIFT-SAT: INtegrated Testbed Ensuring Resilient Active/Passive CoexisTence (INTERACT): End-to-End Learning-Based Interference Mitigation for Radiometers
7	Hongbin Li (Stevens Ins. of Tech.)	SWIFT-SAT: Unlimited Radio Interferometry: A Hardware-Algorithm Co-Design Approach to RAS-Satellite Coexistence
8	John Volakis (Florida International U.)	Collaborative Research:SWIFT:Ultra Wideband Flexible MIMO Radios for Energy Efficient Secure Spectrum Sharing
9	Cong Shen (Univ. of Virginia)	Collaborative Research: SWIFT: SMALL: Learning-Efficient Spectrum Access for No-Sensing Devices in Shared Spectrum
10	Arjuna Madanayake (Florida International U.)	Collaborative Research: SWIFT: AI-based Sensing for Improved Resiliency via Spectral Adaptation with Lifelong Learning
11	Hun-Seok Kim (U. of Michigan)	SWIFT: Instantaneous Feedback-based Adaptive Communications and Networks
12	Joel Johnson (The Ohio State Univ.)	Collaborative Research: SWIFT: Facilitating Novel Modalities for Spectrum Sharing between Earth-Observing Microwave Radiometers and Commercial Users
13	Miguel Morales (U. of Washington)	Collaborative Research: SWIFT-SAT: RFI Detection Across Six Orders of Magnitude in Intensity: A Unifying Framework with Weakly Supervised Machine Learning
14	Bang Nhan (NRAO)	SWIFT-SAT: Observational Data Sharing