AGENDA

Third NIST Workshop on Block Cipher Modes of Operation 2023 National Cybersecurity Center of Excellence Rockville, Maryland

Tuesday, October 3, 2023		
8:15	Shuttle Departs Courtyard Gaithersburg Washingtonian Center	
8:30 – 9:00	Arrival/Badging/Continental breakfast.	
Session I – Opening Session Chair: Morris Dworkin		
9:00 – 9:10	Welcome	
	Matthew Scholl	
9:10 – 10:00	Keynote Address: Radical CS	
	Phillip Rogaway	
10:00 – 10:30	Report on the Block Cipher Modes of Operation in the NIST SP 800-38 Series	
	Nicky Mouha	
10:30 – 11:00	Break	
Session II – Security Notions Session Chair: Nicky Mouha		
11:00 – 11:20	Overloading the Nonce: Rugged PRPs, Nonce-Set AEAD, and Order-Resilient	
	Channels	
	Jean Paul Degabriele and Vukašin Karadžic	
11:20 – 11:40	Upgrading AEAD Privacy: The AE2 goal	
11.20	Mihir Bellare	
11:40 – 12:00	The Landscape of Committing Authenticated Encryption	
	Mihir Bellare, <u>Viet Tung Hoang</u> , and Cong Wu	
12:00 – 1:20	Lunch	
Session III – Tweakable Wide Encryption Session Chair: Meltem Sönmez Turan		
1:20 – 1:40	SHAKE Modes of Operation	
	Joan Daemen, Seth Hoffert, Silvia Mella, and Gilles Van Assche	
1:40 – 2:00	Deck-Based Wide Block Cipher Modes	
	Aldo Gunsing, Joan Daemen, and <u>Bart Mennink</u>	
2:00 – 2:20	Length-Preserving Encryption with HCTR2	
	Paul Crowley, Nathan Huckleberry, and Eric Biggers	
2:20-2:50	Break	
Session IV – Perspectives on Standardization Session Chair: John Kelsey		
2:50 – 3:10	Practical Challenges with AES-GCM and the Need for a New Cipher	
	Panos Kampanakis, Matt Campagna, Eric Crocket, and Adam Petcher	
3:10 – 3:30	Proposals for Standardization of Encryption Schemes	
	John Preuß Mattsson, Ben Smeets, and Erik Thormarker	
3:30 – 5:00	Panel Discussion: Lessons Learned	
	Lily Chen, Joan Daemen, Phillip Rogaway, and Miles Smid	
	Moderator: John Kelsey	
5:15	Shuttle Departs NCCoE to Return to Hotel	

Wednesday, October 4, 2023		
8:15	Shuttle Departs Courtyard Gaithersburg Washingtonian Center	
8:30 – 9:00	Arrival/Badging/Continental breakfast.	
Session V – Authenticated Encryption Session Chair: Yu Long Chen		
9:00 – 9:20	Short Tweak TBC and Its Applications in Symmetric Ciphers Avik Chakraborti, Nilanjan Datta, Ashwin Jha, Cuauhtemoc Mancillas-López, Mridul Nandi, and Yu Sasaki	
9:20 – 9:40	Galois Counter Mode with Secure Short Tags (GCM-SST) Matthew Campagna, Alexander Maximov, and John Preuß Mattsson	
9:40 – 10:00	Constructions based on the AES Round and Polynomial Multiplication that are Efficient on Modern Processor Architectures Shay Gueron	
10:00 – 10:30	Break	
Session VI – Government Interests Session Chair: Yu Sasaki		
10:30 – 11:00	Validation Testing for Block Cipher Modes Christopher Celi	
11:00 – 11:30	Update on Standardization of Ascon family Meltem Sönmez Turan	
11:30 – 12:00	Authenticated Encryption Modes for use in National Security Systems Matthew Simpson	
12:00 – 1:20	Lunch	
Session VII – Key/Context Commitment Session Chair: Donghoon Chang		
	Key Committing Security of AEZ	
1:20 – 1:40	Yu Long Chen, Antonio Flórez-Gutiérrez, Akiko Inoue, Ryoma Ito, Tetsu Iwata, Kazuhiko Minematsu, Nicky Mouha, Yusuke Naito, Ferdinand Sibleyras, and Yosuke Todo	
1:40 – 2:00	Flexible Authenticated Encryption <u>Sanketh Menda</u> , Julia Len, Viet Tung Hoang, Mihir Bellare, and Thomas Ristenpart	
2:00 – 2:20	KIVR: Context-Committing Authenticated Encryption Using Plaintext Redundancy and Application to GCM and Variants	
	<u>Yusuke Naito</u> , Yu Sasaki, and Takeshi Sugawara	
2:20 – 2:50 Break		
Session VIII – Closing Session Chair: Morris Dworkin		
2:50 – 3:20	Lightning Talks Talks will be recorded. By presenting, you acknowledge and consent to being recorded.	
3:20 – 3:30	Next Steps Morris Dworkin	
3:30 – 4:45	Open Discussion	
5:00	Shuttle Departs NCCoE to Return to Hotel	