

UCOMMS 21 SCHEDULE (release 3 - August 30)

DAY 1: TUESDAY, AUGUST 31

Time (Italian, CEST Time)	Session	Title Author(s)
14:00	Conference Opening	
14:05	Welcome Address by the Director of the NATO STO CMRE, Dr. Catherine Warner	
14:10	New Applications Enabled by Next-Gen Underwater Acoustic Comms	"Variability in Shallow Water Communication Performance Near a Busy Shipping Lane" Mandar Chitre, Teong-Beng Koay, Grant Deane and Gabriel Chua
14:30	New Applications Enabled by Next-Gen Underwater Acoustic Comms	"Polar Coded Non-Coherent Acoustic Underwater Communication" Viktor Lidström
14:50	New Applications Enabled by Next-Gen Underwater Acoustic Comms	"Non Data-Aided Estimation of Time-Varying Multiscale Doppler in Underwater Acoustic Channels" Francois-Xavier Socheleau
15:10	New Applications Enabled by Next-Gen Underwater Acoustic Comms	"From the Long-Range Channel in the Ocean to the Short-Range and very Shallow-Water Acoustic Channel in Ports and Harbors" Fabian Steinmetz and Bernd-Christian Renner
15:30	Break	
15:45	New Applications Enabled by Next-Gen Underwater Acoustic Comms	"Multiple access acoustic communication in underwater mobile networks" Christophe Bernard, Pierre-Jean Bouvet, Antony Pottier and Philippe Forjonel
16:05	New Applications Enabled by Next-Gen Underwater Acoustic Comms	"High-speed underwater acoustic communication for multi-agent supervised autonomy" Arnaud Jarrot, Andriy Gelman, Gloria Choi, Andrew Speck, Gavin Strunk, Arnaud Croux, Timothy P. Osedach Stephane Vannuffelen, Sepand Ossia, Jack Vincent, Sebastien Grall and Guillaume Eudeline
16:25	Underwater Localisation	"Accuracy of TWR-Based Ranging and Localization in Mobile Acoustic Underwater Networks" Tara Stojimirovic and Bernd-Christian Renner
16:45	Underwater Localisation	"Self-Adapting Under-Ice Integrated Communications and Navigation Network" Toby Schneider, Henrik Schmidt and Supun Randeni
17:05	Underwater Localisation	"Robust Graph Localization for Underwater Acoustic Networks" George Sklivanitis, Panos P. Markopoulos, Dimitris A. Pados and Roei Diamant
17:25	Underwater Localisation	"Delay-Tolerant Data Fusion for Underwater Acoustic Tracking Networks" Mohammadreza Alimadadi, Milica Stojanovic and Pau Closas
17:45	Day Closure	
17:50	END	

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DAY 2: WEDNESDAY, SEPTEMBER 1

Time (Italian, CEST Time)	Session	Title Author(s)
14:00	Welcome	
14:05	Non-Acoustic Underwater Communications	"Modelling, Measurement and Correction of Underwater Turbulence Effects on Optical Communications" Szymon Gładysz, Max Segel, Jose Montoya, Italo Toselli, Osvaldo Javier Galicia Gasperin and Karin Stein
14:25	Non-Acoustic Underwater Communications	"Practical applications of free-space optical underwater communication" Bahr Alexander, Schill Felix and Martin Igor
14:45	Non-Acoustic Underwater Communications	"On the Capacity of Underwater Optical Wireless Communication Systems" Yue Rong, Sven Nordholm and Alec Duncan
15:05	Non-Acoustic Underwater Communications	"Evaluating the Feasibility of Magnetic Induction to Cross the Air-Water Boundary" Mark C. Watson, Jean-François Bousquet, and Adam Forget
15:25	The Roles of Deterministic and Statistical Methods in Acoustic Propagation Modeling for Underwater Acoustic Communications Simulation and Performance Prediction	"In-situ performance prediction of a coherent acoustic modem" Paul van Walree and Mathieu Colin
15:40	Break	
15:55	The Roles of Deterministic and Statistical Methods in Acoustic Propagation Modeling for Underwater Acoustic Communications Simulation and Performance Prediction	"Performance evaluation of Multi-user MIMO Underwater Acoustic Communications" Antony Pottier, Pierre-Jean Bouvet and Philippe Forjonel
16:15	The Roles of Deterministic and Statistical Methods in Acoustic Propagation Modeling for Underwater Acoustic Communications Simulation and Performance Prediction	"Under-ice acoustic communication in the Nansen Basin" Paul van Walree, Dag Tollefsen and Vidar Forsmo
16:35	The Roles of Deterministic and Statistical Methods in Acoustic Propagation Modeling for Underwater Acoustic Communications Simulation and Performance Prediction	"Channel Quality Prediction for Adaptive Underwater Acoustic Communication" Hossein Ghannadrezaii, Jeff MacDonald, Jean-François Bousquet and David Barclay
16:55	Interoperability and standards	"A Task-Centric Messaging Model for Federated Autonomous Collaboration" Thomas C. Furfaro, Andrew Bouchard, Gary L. Davies and Martijn van Riet
17:15	Interoperability and standards	"Enhancing JANUS Signaling" Dale Green, John Dellamorte and Jim Dellamorte
17:35	Day Closure	
17:40	END	

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DAY 3: THURSDAY, SEPTEMBER 2

Time (Italian, CEST Time)	Session	Title Author(s)
14:00	Welcome	
14:05	Next-Generation Adaptive Modem Architectures and Cognitive Networking Strategies	"High-rate underwater acoustic communication over 600 kbps × km for vertical uplink data transmission on a full-depth lander system" Takuya Shimura, Yukihiko Kida, Mitsuyasu Deguchi, Yoshitaka Watanabe and Yosaku Maeda
14:25	Next-Generation Adaptive Modem Architectures and Cognitive Networking Strategies	"Distributed Spatial Diversity Enabled Receiver System for an Underwater Acoustic Link" Prasad Anjangi, Mandar Chitre, Manu Ignatius and Chinmay Pendharkar
14:45	Next-Generation Adaptive Modem Architectures and Cognitive Networking Strategies	"An Adaptive Transmission Power Controller for Flooding-based Underwater Network Protocols" Elias Strandell Erstorp, Peter Sigray and Jakob Kuttenkeuler
15:05	Next-Generation Adaptive Modem Architectures and Cognitive Networking Strategies	"On the challenge of underwater acoustic communication at short range" Henry Dol and Koen Blom
15:25	Next-Generation Adaptive Modem Architectures and Cognitive Networking Strategies	"An Event-Based Stack for Data Transmission Through Underwater Multimodal Networks" Roberto Francescon, Filippo Campagnaro, Emanuele Coccolo, Alberto Signori, Federico Guerra, Federico Favaro and Michele Zorzi
15:40	Break	
15:55	Next-Generation Adaptive Modem Architectures and Cognitive Networking Strategies	"Experimental evaluation of an FPGA based Real-Time Doppler Estimator" Jacob Rudander, Thor Husøy, Pål Orten and Paul van Walree
16:15	Next-Generation Adaptive Modem Architectures and Cognitive Networking Strategies	"On Mitigating Channel Time Variation Effect in Acoustic OFDM Systems" Amir Tadayon, Munish Taya, and Milica Stojanovic
16:35	Channel-Aware Security and Protocol Design	"Physical Layer Security against an Informed Eavesdropper in Underwater Acoustic Channels: Feature Extraction and Quantization" Konstantinos Pelekanakis, Seçkin Anil Yıldırım, George Sklivanitis, Roberto Petroccia, João Alves and Dimitris A. Pados
16:55	Channel-Aware Security and Protocol Design	"Physical Layer Security against an Informed Eavesdropper in Underwater Acoustic Channels: Reconciliation and Privacy Amplification" George Sklivanitis, Konstantinos Pelekanakis, Seçkin Anil Yıldırım, Roberto Petroccia, João Alves and Dimitris A. Pados
17:15	Channel-Aware Security and Protocol Design	"Topology-based Secret Key Generation for Underwater Acoustic Networks" Roe Diamant, Paolo Casari, and Stefano Tomasin
17:35	Day Closure	
17:40	END	