

**International Radar Conference 2023**  
**MONDAY 06 November 2023 - FRIDAY 10 November 2023**  
**ICC Sydney**

**Monday, 06 November 2023**

	<b>C3.1</b>	<b>C3.2</b>	<b>C3.3</b>	<b>C3.4</b>	<b>C3.5</b>
	<i>MO-M1</i>	<i>MO-M2</i>	<i>MO-M3</i>	<i>MO-M4</i>	<i>MO-M5</i>
<b>08:00</b>	Ultra Wideband Surveillance Radar <b>Dr Mark Davis</b>	Systematic Filter Design for Tracking Maneuvering Targets: Getting Guaranteed Performance Out Of your Sensors <b>Dr Dale Blair</b>	Unleashing the Potential of Dual-Functional Radar Communications in Next-Generation Wireless Networks: A Tutorial on Advancement and Challenges <b>Dr Kai Wu, A/Prof Elias Aboutanios and Prof Andrew Zhang</b>	Introduction to Radar <b>Prof Hugh Griffiths</b>	Detection, Estimation, and Resource Allocation in Distributed Radar Networks <b>Prof Batu Chalise</b>
<b>09:45</b>	<b>Morning tea break</b>	<b>Morning tea break</b>	<b>Morning tea break</b>	<b>Morning tea break</b>	<b>Morning tea break</b>
<b>10:15</b>	Ultra Wideband Surveillance Radar <b>Dr Mark Davis</b>	Systematic Filter Design for Tracking Maneuvering Targets: Getting Guaranteed Performance Out Of your Sensors <b>Dr Dale Blair</b>	Unleashing the Potential of Dual-Functional Radar Communications in Next-Generation Wireless Networks: A Tutorial on Advancement and Challenges <b>Kai Wu, Elias Aboutanios and Andrew Zhang</b>	Introduction to Radar <b>Prof Hugh Griffiths</b>	Detection, Estimation, and Resource Allocation in Distributed Radar Networks <b>Prof Batu Chalise</b>
<b>12:00</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
<b>13:00</b>		Advanced Radar Detection and Applications <b>Dr Scott Goldstien and Dr Mike Picciolo</b>		Introduction to Electronic Warfare <b>Mr David Brown</b>	Introduction to Over-the-Horizon Radar <b>Dr Joe Fabrizio</b>
<b>14:00</b>			ISAC workshop (starting time 2pm)		
<b>14:45</b>		<b>Afternoon tea break</b>	<b>Afternoon tea break</b>	<b>Afternoon tea break</b>	<b>Afternoon tea break</b>
<b>15:15</b>		Advanced Radar Detection and Applications <b>Dr Scott Goldstien and Dr Mike Picciolo</b>	ISAC workshop	Introduction to Electronic Warfare <b>Mr David Brown</b>	Introduction to Over-the-Horizon Radar <b>Dr Joe Fabrizio</b>
<b>17:00</b>					
<b>17:30</b>	<b>Welcome Drinks - Pumphouse</b>				
<b>19:00</b>					

**International Radar Conference 2023**  
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**Tuesday, 07 November 2023**

	<b>Cockle Bay</b>	<b>C3.2</b>	<b>C3.4</b>	<b>C3.5</b>
	<b>Cockle Bay : Plenary 1</b> <b>Sponsored by CEA Technologies</b> <b>Session Chair: Joe Fabrizio</b>			
<b>8:20</b>	Conference Welcome <b>Dr Luke Rosenberg and Dr Joe Fabrizio</b>			
<b>8:50</b>	Plenary 1 - Dr Sylvie Perreau <b>DSTG, Australia</b> <b>The DSTG Radar Program</b>			
<b>9:25</b>	Plenary 2 - Prof Yonina Eldar <b>Weizmann Institute of Science, Israel</b> <b>Active Sensing for Communications and Health: From Signal Processing to Prototypes</b>			
<b>10:00</b>	<b>Morning Tea</b>	<b>Morning Tea</b>	<b>Morning Tea</b>	<b>Morning Tea</b>
	<b>Cockle Bay : TU-M1</b> <b>[Special Session] Enhancement in Drone Detection</b> <b>Session Chairs: Alberto Lupidi &amp; Michail Antoniou</b>	<b>C3.2 : TU-M2</b> <b>Space Radar</b> <b>Sponsored by Braemac</b> <b>Session Chairs: Nick Stacy &amp; Richard West</b>	<b>C3.4 : TU-M3</b> <b>[Special Session] Automotive Radar</b> <b>Session Chairs: Mats Pettersson &amp; Fabiola Colone</b>	<b>C3.5 : TU-M4</b> <b>Detection and Estimation 1</b> <b>Sponsored by CDERT Flinders University</b> <b>Session Chairs: Mike Picciolo &amp; Scott Goldstein</b>
<b>10:30</b>	<b>TU-M1.1</b> - 182: Multitask Learning for Radar-Based Characterization of Drones <b>Dr Jacco DE WIT</b>	Braemac Industry Talk	<b>TU-M3.1</b> - 84: Phase Modulated FMCW Waveforms and Receiver Structures for Automotive MIMO Radars <b>Dr Nikita PETROV</b>	<b>TU-M4.1</b> - 29: Robust Detection in Distributed MIMO Radar <b>Dr Braham HIMED</b>

<b>10:50</b>	<p><b>TU-M1.2</b> - 135: Study of long integration time passive radar processing techniques for low reflectivity drone detection  <b>Miss Anabel ALMODOVAR-HERNANDEZ</b></p>	<p><b>TU-M2.2</b> - 83: Ambiguity Removal from the Cassini Radar Rings Observations  <b>Dr Richard WEST</b></p>	<p><b>TU-M3.2</b> - 94: Efficient Multi-channel Automotive Radar Interference Mitigation Using Pruned and Quantized Neural Networks  <b>Mr. Marvin KLEMP</b></p>	<p><b>TU-M4.2</b> - 199: Detecting Phonetic Characters using Radar Data  <b>Dr Nour GHADBAN</b></p>
<b>11:10</b>	<p><b>TU-M1.3</b> - 343: Multistatic dual-channel detection of drones: effects of PNT errors  <b>Dr Alessio BALLERI</b></p>	<p><b>TU-M2.3</b> - 115: Development of the Dust Ejecta Radar Technology (DERT) to Determine Plume-Surface Interaction Ejecta Velocities on Planetary Surfaces  <b>Dr Beverly KEMMERER</b></p>	<p><b>TU-M3.3</b> - 248: Hybrid Approach for Reflective Surfaces Reconstruction Using Automotive Radar  <b>Mr Aviran GAL</b></p>	<p><b>TU-M4.3</b> - 131: Detection Performance Analysis of Fully Coherent Multistatic Radar Processing  <b>Dr Paul BERRY</b></p>
<b>11:30</b>	<p><b>TU-M1.4</b> - 230: Urban Clutter Analysis for Drone Detection using L-band Staring Radar  <b>Dr Michail ANTONIOU</b></p>	<p><b>TU-M2.4</b> - 155: Impact of Ionospheric Doppler Perturbations on Space Domain Awareness Observations  <b>A/Prof Manuel CERVERA</b></p>	<p><b>TU-M3.4</b> - 264: Bistatic Inverse Synthetic Aperture Radar Imaging of Automotive Targets at Millimeter Frequencies  <b>Prof Srihari PATHIPATI</b></p>	<p><b>TU-M4.4</b> - 251: Signal Fusion-based Distributed Detection in Heterogeneous Radar Scenarios  <b>Miss Aoya WANG</b></p>
<b>11:50</b>	<p><b>TU-M1.5</b> - 225: Parameter Estimation of Rotary Drones in Far Distance using Long-Time Spectral Processing  <b>Mr Kun WU</b></p>	<p><b>TU-M2.5</b> - 226: Skywave radar for planets other than Earth  <b>Prof Stuart ANDERSON</b></p>	<p><b>TU-M3.5</b> - 284: Radar-Lidar Fusion for Classification of Traffic Signaling Motion in Automotive Applications  <b>Prof Ali GURBUZ</b></p>	<p><b>TU-M4.5</b> - 64: Binary Quadratic Programming based Detector for Radar Target in Compound Gaussian Clutter  <b>Dr Wenjing ZHAO</b></p>
<b>12:10</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>
	<p><b>Cockle Bay : TU-A1</b>  <i>[Special Session] Multidimensional Radar Imaging</i>  <b>Session Chairs: Elisa Giusti &amp; Marco Martorella</b></p>	<p><b>C3.2 : TU-A2</b>  <i>[Special Session] New Frontiers in Passive Radar</i>  <b>Session Chairs: Diego Cristallini &amp; Piotr Samczynski</b></p>	<p><b>C3.4 : TU-A3</b>  <i>Automotive and Autonomous Systems Sponsored by Thales</i>  <b>Session Chairs: Aboulnasr Hassanien &amp; Patrick Berens</b></p>	<p><b>C3.5 : TU-A4</b>  <i>Detection and Estimation 2</i>  <b>Session Chairs: Braham Himed &amp; Batu K. Chalise</b></p>

<b>13:10</b>	<b>TU-A1.1</b> - 126: Potentials of multi-aspect and multi-frequency radar imaging illustrated by experimental results in Ka- and W-band <b>Dr Ingo WALTERSCHEID</b>	<b>TU-A2.1</b> - 47: A portable many-element coherent receiver system for passive radar and space domain awareness <b>A/Prof Randall WAYTH</b>	<b>TU-A3.1</b> - 39: W-band Radar aboard of Unmanned Aerial System for Wire Strike Avoidance <b>Prof Massimiliano PIERACCINI</b>	<b>TU-A4.1</b> - 306: Determination of the Number of Stages of the Multistage Wiener Filter <b>Ms Rachel GRAY</b>
<b>13:30</b>	<b>TU-A1.2</b> - 271: Hybrid Polarimetry Inverse SAR <b>Dr Ajeet KUMAR</b>	<b>TU-A2.2</b> - 53: Impact of Transmitter Elevation Pattern on Multi-frequency DVB-T Passive Radar Detection of Airborne Targets <b>Dr Thomas SJÖGREN</b>	<b>TU-A3.2</b> - 339: Resolving Target Ambiguities in Automotive Radar Using DDMA Techniques <b>Mr Aboulnasr HASSANIEN</b>	<b>TU-A4.2</b> - 79: Experimental Analysis of a Clutter Suppression Algorithm for High Time-Bandwidth Noise Radar <b>Mr Robert S. JONSSON</b>
<b>13:50</b>	<b>TU-A1.3</b> - 76: Large Baseline Bistatic Radar Imaging for Space Domain Awareness <b>Dr Faruk UYSAL</b>	<b>TU-A2.3</b> - 143: Experimental UAV detection using 4G-LTE-based passive radar <b>Dr Abigael TAYLOR</b>	<b>TU-A3.3</b> - 256: FMCW Interference Suppression Technique in OFDM Automotive Radar Using Grid Dechirping <b>Mr Antônio MAEDA-MAGALHAES</b>	<b>TU-A4.3</b> - 270: Discrimination of Automotive Radar Distributed Targets <b>Dr Zhouchang REN</b>
<b>14:10</b>	<b>TU-A1.4</b> - 281: Multi-Static and Multi-Temporal ISAR Imaging of Non-Cooperative Air Targets <b>Dr Marcin BączYK</b>	<b>TU-A2.4</b> - 136: DoA techniques in UAV detection with DVB-T based Passive Radar <b>Dr Nerea DEL REY MAESTRE</b>	<b>TU-A3.4</b> - 82: Robust 3D Mobile Mapping with Radar Sensors: A Real-Time Approach for Autonomous Navigation <b>Mr Christoph WEIDINGER</b>	<b>TU-A4.4</b> - 101: A NLOS Target Detection Method with MMW Radar under Low SNR <b>Dr Haolan LUO</b>
<b>14:30</b>	<b>TU-A1.5</b> - 186: Maritime 3D-ISAR with Clutter Suppression <b>Dr Chow Yii PUI</b>	<b>TU-A2.5</b> - 172: New Frontiers in Passive Radar – an Industrial Perspective <b>Dr Steffen LUTZ</b>	<b>TU-A3.5</b> - 208: Collision Avoidance Navigation with Radar and Spiking Reinforcement Learning <b>Mr Laurens VAN DAMME</b>	<b>TU-A4.5</b> - 112: Clutter Compensation for Space-Air Bistatic Radar Based on Unitary Subspace Transformation <b>Dr Qingyun KAN</b>
<b>14:50</b>	<b>Afternoon Tea</b>	<b>Afternoon Tea</b>	<b>Afternoon Tea</b>	<b>Afternoon Tea</b>

	<p><b>Cockle Bay : TU-A5</b>  <b>[Special Session] Student Paper</b>  <b>Competition</b>  <b>Session Chairs: Laura Anitori &amp; Alex</b>  <b>Charlish</b></p>	<p><b>C3.2 : TU-A6</b>  <b>Passive Radar</b>  <b>Session Chairs: Stephen Searle &amp;</b>  <b>Konrad Jedrzejewski</b></p>	<p><b>C3.4 : TU-A7</b>  <b>Integrated Radar (Sensing) and</b>  <b>Communications</b>  <b>Sponsored by AVNET</b>  <b>Session Chairs: Sabrina Greco &amp; Myriam</b>  <b>Nouvel</b></p>	<p><b>C3.5 : TU-A8</b>  <b>Radar Signal Processing</b>  <b>Session Chairs: Shannon Blunt &amp;</b>  <b>Vaughan Clarkson</b></p>
15:20	<p><b>TU-A5.1</b> - 66: Anomaly Based Drone Classification Using a Model Trained Convolutional Neural Network Autoencoder on Radar Micro-Doppler  <b>Mr Alexander KARLSSON</b></p>	<p><b>TU-A6.1</b> - 181: First Results of DVB-S Based Passive Polarimetric Measurements of micro-Doppler Signatures of a Helicopter  <b>Mr Martin UMMENHOFER</b></p>	<p><b>TU-A7.1</b> - 152: Multifunctional Radar and Data Link Functions for Dual Use Applications  <b>Dr Michael BRANDFASS</b></p>	<p><b>TU-A8.1</b> - 183: Effects of Range Doppler-rate Coupling on High Frequency Chirp Radar for Accelerating Targets  <b>Mr Brendan HENNESSY</b></p>
15:40	<p><b>TU-A5.2</b> - 80: Enhanced Target Tracking Based on Novel 5D Millimeter-wave Automotive MIMO Radar  <b>Dr Hengfeng LIU</b></p>	<p><b>TU-A6.2</b> - 44: The Effect of Transmitter Nonlinearity on Passive Radar Ambiguity Processing  <b>Mr Stephen SEARLE</b></p>	<p><b>TU-A7.2</b> - 338: Ambiguity Function Analysis of the Frequency-Hopped Code Selection Scheme  <b>Dr William BAXTER</b></p>	<p><b>TU-A8.2</b> - 269: Group Counting Using Micro-Doppler Signatures From a 77GHz FMCW Radar  <b>Mr Dejvi CAKONI</b></p>
16:00	<p><b>TU-A5.3</b> - 91: High-Resolution 2D MIMO Radars for Traffic Gesture Recognition  <b>Mr Nicolai KERN</b></p>	<p><b>TU-A6.3</b> - 266: GNSS-Based Non-Cooperative Air Traffic Situational Awareness  <b>Dr Alexandra FILIP-DHAUBHADEL</b></p>	<p><b>TU-A7.3</b> - 213: Colocated MIMO Radar Anti-sorting Waveform Design based on Communication Camouflage  <b>Mr Mingcong LIN</b></p>	<p><b>TU-A8.3</b> - 151: Decentralized Digital Clock Drift Compensation in Distributed Radar Sensor Networks Through Single-Tone Frequency Broadcasts  <b>Mr Russell KENNEY</b></p>
16:20	<p><b>TU-A5.4</b> - 159: Enabling Intra-CPI Frequency Agility Via Backprojection Based Range-Doppler Processing  <b>Mr Rylee MATTINGLY</b></p>	<p><b>TU-A6.4</b> - 327: Passive Multistatic Localization of Space Objects using LOFAR Radio Telescope  <b>Prof Konrad JEDRZEJEWSKI</b></p>	<p><b>TU-A7.4</b> - 241: Transmit Sparse Array Beamformer Design for Dual-Function Radar Communication Systems  <b>Miss Jiayi HUANG</b></p>	<p><b>TU-A8.4</b> - 206: Importance Differentiation Based Coordinated Anti-Jamming Strategy Optimization for Frequency Agile Radar  <b>Mr Linhua BAI</b></p>

16:40	<p><b>TU-A5.5</b> - 188: A Particle Swarm Optimization Approach to Surveillance Resource Management  <b>Mr Shane FLANDERMEYER</b></p>	<p><b>TU-A6.5</b> - 285: Comparison of DF algorithms for target localization in UCA FM bi-static passive radar  <b>Dr Mohammed MOBIEN</b></p>	<p><b>TU-A7.5</b> - 110: An FDA-MIMO-Based Range-Ambiguous Clutter Sensing Approach for STAP  <b>Mr Youai WU</b></p>	<p><b>TU-A8.5</b> - 164: Element Space DOA Estimation for Directional Transmission Scanning Phased Array Radars  <b>Prof Doug Gray</b></p>
17:00	<p><b>Young Professionals Event</b></p>			

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**Wednesday, 08 November 2023**

	<b>Cockle Bay</b>	<b>C3.2</b>	<b>C3.4</b>	<b>C3.5</b>	<b>Foyer</b>
	<b>Cockle Bay : Plenary 2</b> <b>Sponsored by Department of Defence</b> <b>Session Chair: Luke Rosenberg</b>				
<b>8:20</b>	Plenary 1 - Dr Frank Robey <b>DARPA, USA</b> <b>The DARPA BLiP Program</b>				
<b>8:55</b>	Plenary 2 - Mr Willie Nell <b>CSIR, South Africa</b> <b>Saving the Rhino in the Kruger National Park</b>				
<b>9:30</b>					<b>Poster Session 1</b> <b>Session Chairs: Leigh Powis &amp; Sandun Kodituwakku</b>
<b>10:00</b>	<b>Morning Tea</b>	<b>Morning Tea</b>	<b>Morning Tea</b>	<b>Morning Tea</b>	
	<b>Cockle Bay : WE-M1</b> <i>AI/ML-based Radar and its Applications 1</i> <b>Sponsored by Rhode and Schwartz Session</b> <b>Chairs: Justin Metcalf &amp; Faruk Uysal</b>	<b>C3.2 : WE-M2</b> <b>SAR/ISAR 1</b> <b>Session Chairs: Philipp Markiton &amp; Mark Preiss</b>	<b>C3.4 : WE-M3</b> <i>[Special Session] Advances in Sparse Array Design using Deep Learning</i> <b>Session Chairs: Xiangrong Wang &amp; Elias Aboutanios</b>	<b>C3.5 : WE-M4</b> <i>Tracking and Fusion 1</i> <b>Session Chairs: Dale Blair &amp; Du Yong Kim</b>	
<b>10:30</b>	Rhode and Schwartz Industry Talk	<b>WE-M2.1</b> - 254: First multi-channel results of the airborneSAR/GMTI sensor PAMIR-Ka <b>Dr Patrick BERENS</b>	<b>WE-M3.1</b> - 109: DOA Estimation via Meta-Learning under Array Sensor Failures <b>Mr Chengyuan HE</b>	<b>WE-M4.1</b> - 67: Data Driven Track Before Detect Using Artificial Neural Networks <b>Mr Alexander KARLSSON</b>	
<b>10:55</b>	<b>WE-M1.2</b> - 220: Discrimination of small targets in sea clutter using a hybrid CNN-LSTM network <b>Mr Richard Jasper DE JONG</b>	<b>WE-M2.2</b> - 40: Hybrid Passive-Active Approach for Interference Mitigation in Spaceborne SAR <b>A/Prof Akram HOURANI</b>	<b>WE-M3.2</b> - 243: CNN based Sparse IRS Design for Channel Estimation in Assisted Uplink Communications <b>Mr Weitong ZHAI</b>	<b>WE-M4.2</b> - 304: Collaborative Game Theory and Reinforcement Learning Improvements for Radar Tracking <b>Mr Geoffrey DOLINGER</b>	

11:10	<b>WE-M1.3</b> - 133: Concept for an Automatic Annotation of Automotive Radar Data Using AI-segmented Aerial Camera Images <b>Mr Michael STELZIG</b>	<b>WE-M2.3</b> - 42: Reconstruction of Fine Cross-Range Resolution ISAR Images of Targets in 3-D Motion using Compressed Sensing and Frame Selection <b>Mr Inhyeok LEE</b>	<b>WE-M3.3</b> - 263: Enhanced Maximum Interelement Constrained Array Design via Simple Hole-Filling Strategy <b>Mr Steven WANDALE</b>	<b>WE-M4.3</b> - 77: A MIMO ISAR Approach with Depth Camera Motion Tracking for Improved Imaging in Walk-Through Security Scanners <b>Mr Konstantin ROOT</b>
11:30	<b>WE-M1.4</b> - 237: Automatic LPI Radar Waveform Recognition Using Vision Transformer <b>Mr Junseob KIM</b>	<b>WE-M2.4</b> - 232: Experiments on an ISAR-Communication System Using Continuous Phase Modulation and Mismatched Filtering <b>Dr Abigael TAYLOR</b>	<b>WE-M3.4</b> - 274: Receive Beamforming with Sidelobe and Nulling Control for Multifunctional Sparse Array <b>Ms Longyao RAN</b>	<b>WE-M4.4</b> - 235: Radar Multi Object Tracking using DNN Features <b>Mr Mujtaba HASSAN</b>
11:50	<b>WE-M1.5</b> - 290: Statistical Feature Vector (SFV) for SAR ATR <b>Dr Michael PICCIOLO</b>	<b>WE-M2.5</b> - 184: Hierarchical Classification of ISAR Sequences <b>A/Prof Len HAMEY</b>	<b>WE-M3.5</b> - 293: Deep Sparse Array Design for Integrated Sensing and Communications <b>Prof Ali Cafer GURBUZ</b>	<b>WE-M4.5</b> - 273: A Real-Time Implementation of a DPCA GMTI Technique for a UAV SAR Demonstrator System Developed by the CSIR. <b>Mr Katlego MOSITO</b>
12:10	Lunch Break	Lunch Break	Lunch Break	Lunch Break
13:10	Panel Session - Dreaming the Radar Future			
14:20				
14:50	Afternoon Tea	Afternoon Tea	Afternoon Tea	Afternoon Tea
	<b>Cockle Bay : WE-A1</b> <b>AI/ML-based Radar and its Applications 2</b> <b>Session Chairs: Willie Nel &amp; Patrick McCormick</b>	<b>C3.2 : WE-A2</b> <b>SAR/ISAR 2</b> <b>Session Chairs: Chow Pui &amp; Ingo Walterscheid</b>	<b>C3.4 : WE-A3</b> <b>Array Processing</b> <b>Session Chairs: Doug Gray &amp; Graham Brooker</b>	<b>C3.5 : WE-A4</b> <b>Tracking and Fusion 2</b> <b>Sponsored by LMA</b> <b>Session Chairs: Anthony Murray &amp; Anthony Trezza</b>
15:20	<b>WE-A1.1</b> - 195: Design of phase-quantized unimodular waveforms on neural networks for MIMO radar systems <b>Mr Ryota SEKIYA</b>	<b>WE-A2.1</b> - 36: Two Dimensional Resolution Improvement for FMCW Synthetic Aperture Radar Using Multistatic Configuration <b>Mr Min Gon CHO</b>	<b>WE-A3.1</b> - 280: Coherency limits and synchronisation of a netted radar system using USRPs as nodes <b>Mr Angel SLAVOV</b>	LMA Industry Talk
				<b>Poster Session 2</b> <b>Session Chairs: Troy Kilpatrick &amp; Robby McKilliam</b>



15:40	<b>WE-A1.2</b> - 170: Robust Radar Micro-Doppler Target Classification of Small Drones by Data Augmentation <b>Mr Sidney RYDSTRÖM</b>	<b>WE-A2.2</b> - 37: UAS-borne CWSF SAR imaging: evaluation/compensation of Doppler effect <b>Prof Massimiliano PIERACCINI</b>	<b>WE-A3.2</b> - 68: Human Target Recognition Using MIMO FMCW Radar and Slow-Time DC-Value Suppression <b>Mr Keivan ALIREZAZAD</b>	<b>WE-A4.2</b> - 244: Track-Before-Detect Adaptive Birth Using Generic Observation Model Labeled Random Finite Sets <b>Mr Anthony TREZZA</b>
16:00	<b>WE-A1.3</b> - 93: Classification of Marine Traffic Activities Using ES Sensors and A VAE-CapsNet Approach <b>Dr Timothy LYNAR</b>	<b>WE-A2.3</b> - 46: A Robust CFAR Algorithm Based on Superpixel Merging Operation for SAR Ship Detection <b>Dr Zhouchang REN</b>	<b>WE-A3.3</b> - 63: A Reduced-Dimensional STAP Scheme for End-Fire Array Airborne Radar <b>Mr Haihong WANG</b>	<b>WE-A4.3</b> - 291: Parameter Tuning for Maritime Track-Before-Detect <b>Dr Du Yong KIM</b>
16:20	<b>WE-A1.4</b> - 73: Space-time Adaptive Processing Using a Model-based Deep Learning Method <b>Mr Zhipeng LIAO</b>	<b>WE-A2.4</b> - 134: Harbour Area Change Detection and Analysis Using SAR Images from a Recent Measurement Campaign <b>Dr Saleh JAVADI</b>	<b>WE-A3.4</b> - 224: Joint Design of Transmit and Receive Beamforming for Active RIS-aided Array Radar <b>Dr Shengyao CHEN</b>	<b>WE-A4.4</b> - 332: EM-Based Radar Signal Processing and Tracking of Maneuvering Targets <b>Mr Dale BLAIR</b>
16:40	<b>WE-A1.5</b> - 187: Automated ISAR Image Quality Assessment <b>Dr Tomasz JASINSKI</b>	<b>WE-A2.5</b> - 100: Realistic Scatterer Based Adversarial Attacks on SAR Image Classifiers <b>Mr Lance KAPLAN</b>	<b>WE-A3.5</b> - 87: Reduced-Dimensional 3D-STAP with Multibeam and Multichannel for Space-Based Radar <b>Miss Yufan LI</b>	<b>WE-A4.5</b> - 105: Resources Allocation for Drones Tracking Utilizing Agent-Based Proximity Policy Optimization <b>Mr Maxence DE ROCHECHOUART</b>
17:00				
17:30	<b>Conference Gala Dinner - Harbour Cruise</b>			
19:00	<b>Conference Gala Dinner - Luna Park</b>			
22:30				

**Foyer: WE-M5 Poster Session 1 (9:30 - 10:30)**

**WE-M5.1(1)** - 45: Effect of SAR point spread function on the correlation of clutter  
David Belcher

**WE-M5.1(2)** - 52: Synthetic Aperture Radar Algorithms on Transport Triggered Architecture Processors using OpenCL  
Niklas Rother

**WE-M5.1(3)** - 194: Detecting Planes during Take-off in SAR images using GMTI methods  
Elliot Hansen

**WE-M5.1(4)** - 331: SAR Image Correction of Moving Ships in Marine Scene based on Wakes  
Min Zhang

**WE-M5.1(5)** - 228: Classification of polarimetric SAR imagery based on improved MRF model using Wishart distance and category confidence-degree  
cong xie

**WE-M5.2(1)** - 103: Robust Adaptive Beamforming Based on MR-FDA-MIMO radar Jamming Suppression  
Zhixia Wu

**WE-M5.2(2)** - 114: Gridless Bayesian Inference for DOA Estimation with Coprime Array  
Mr Chengyuan HE

**WE-M5.2(3)** - 185: Velocity Ambiguity Resolution using Opposite Chirprates with LFM Radar  
Brendan Hennessy

**WE-M5.2(4)** - 154: Mean Squared Error Analysis of Least Squares Envelope Fitting DoA Estimator  
Michal Meller

**WE-M5.2(5)** - 288: Pre-processing-based performance enhancement of DOA estimation for wideband LFM signals  
Ronald Mulinde

**WE-M5.2(6)** - 179: A RARE-MUSIC Algorithm for Near-Field Target Localization with COLD-FDA-MIMO Radar  
Tiantian Zhong

**WE-M5.3(1)** - 201: A clutter suppression method based on the intrinsic mode functions reconstruction and information geometry space detection  
Bowen Zhang

**WE-M5.3(2)** - 205: Enhanced Transformers for Radar Jamming Recognition  
Yushi Chen

**WE-M5.3(3)** - 333: Unimodular MIMO Waveform Design for Saturated Forwarded Jammer Suppression  
Xuan Fang

<p><b>WE-M5.3(4)</b> - 275: Interrupted Sampling Repeater Jamming Suppression Based on Time-frequency Segmentation Network and Target Signal Reconstruction Yunyun Meng</p>
<p><b>WE-M5.4(1)</b> - 34: Error Function Analysis and Simulation of the Radar Range Discriminator for the RGPO/I Range Deception Junghoon Lee</p>
<p><b>WE-M5.4(2)</b> - 58: Noise Elimination with Compressive Sensing in Pulse Doppler Radar Receivers Shoji Matsuda</p>
<p><b>WE-M5.4(3)</b> - 86: Calibration and Estimation for FDA-MIMO Radar with Random Amplitude and Phase Errors Feilong Liu Feilong Liu</p>
<p><b>WE-M5.4(4)</b> - 326: A Modular Conformal Antenna Array for Wide-Beam DAA Radars Haider Ali</p>
<p><b>WE-M5.4(5)</b> - 249: Design and Implementation of a Holographic Staring Radar for UAVs and birds Surveillance Rui Guo</p>
<p><b>WE-M5.4(6)</b> - 258: Results of Dual-Polarimetric Airborne Passive Radar Philipp Markiton</p>
<p><b>WE-M5.4(7)</b> - 90: Introduction to cognitive micro-Doppler radar: Optimization and Experiment Jason Gong</p>
<p><b>WE-M5.5(1)</b> - 111: A time-frequency analysis method with joint speed estimation and translation compensation based on Near-Field MIMO Array Yuyang Shao</p>
<p><b>WE-M5.5(2)</b> - 191: Time Delay Compensation For Cascaded MIMO Radar With Injection-Locked Structure Yuanhao Wang</p>
<p><b>WE-M5.5(3)</b> - 246: A Sub-array MIMO Radar Waveform Design with Wide Pulse Compression Main-lobe Xiaohe Du</p>
<p><b>WE-M5.5(4)</b> - 334: On the Recycling of Random FM Radar Waveforms Thomas Kramer</p>
<p><b>WE-M5.5(5)</b> - 48: SINR and WPSL performance analysis for frequency sparse waveform Yinsheng Wei</p>
<p><b>WE-M5.6(1)</b> - 99: How can Human-in-the-loop Improve the Performance of SAR ATR? A Reinforcement Learning Based Approach Bingyi Zhang</p>
<p><b>WE-M5.6(2)</b> - 88: End-to-End Trainable Deep Neural Network for Radar Interference Detection and Mitigation Marvin Klemp</p>

**WE-M5.6(3)** - 56: Fusion Model Using a Neural Network and MLE for a Single Snapshot DOA Estimation with Imperfection Mitigation  
Marcio Luiz Lima de Oliveira

**WE-M5.6(4)** - 242: A Compound Jamming Signals Recognition Method Based on One-Dimensional Multi-Label Convolutional Neural Network  
Jiaqi Li

**WE-M5.7(1)** - 279: An Autonomous Approach to Deinterleave and Recover Radar Pulse Sequences in an Unknown Maritime Environment  
Guillaume Martin

**WE-M5.7(2)** - 128: End-to-End Training of Neural Networks for Automotive Radar Interference Mitigation  
Christian Oswald

**WE-M5.8(1)** - 296: Introducing a Multichannel Active Radar System for Research and Collaboration  
Dr Joe Fabrizio

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**Foyer: WE-A5 Poster Session 2 (14:20 - 15:20)**

**WE-A5.1(1)** - 289: Factors to Consider for Radiometric calibration of Airborne FMCW SAR imagery  
Hebert Tema

**WE-A5.1(2)** - 212: X-band SAR Data Acquisition and Frame-based Imaging: Towards Wide Area Surveillance  
Md Anowar Hossain

**WE-A5.1(3)** - 250: High Resolution Inverse Synthetic Aperture Radar Frequency Estimation using Fast Iterative Interpolated Beamformer  
Jeremy Parkinson

**WE-A5.1(4)** - 260: Unsupervised SAR change detection with despeckling autoencoders  
Joana Frontera-Pons

**WE-A5.1(5)** - 323: Passive Spaceborne SAR Using Opportunity of Illumination  
Ferdinand Ganda Kurnia

**WE-A5.1(6)** - 207: Scene Characteristic Mining-Based Semisupervised Network for Ship Detection in SAR Images  
Yuang Du

**WE-A5.2(1)** - 50: Low-Cost Vehicle In-Cabin Occupancy Detection Using An Approximate Model of XGBoost  
Kotone Sato

**WE-A5.2(2)** - 265: Parameters Extraction of Unknown Radar Signals Using Change Point Detection.  
Anthony Torre

**WE-A5.2(3)** - 190: Vehicles Detection, Tracking, And Classification Using 35GHz FMCW Radar  
Nannan Zhu

**WE-A5.2(4)** - 200: Distributed Radar Target Detection with Ordered Local Statistics  
Man Zhang

**WE-A5.2(5)** - 107: Target detection in mainlobe jammers with FDA-MIMO radar  
Jingjing Zhu

**WE-A5.3(1)** - 255: Super-resolution Imaging Method for Swarm Targets Based on Group Lasso  
Gang Mei

**WE-A5.3(2)** - 238: Improved Multi-Person Vital Signs Estimation Algorithm in Sitting and Standing Positions using MIMO FMCW Radar  
Bassam Elmakhzangy

**WE-A5.3(3)** - 239: Joint Multiple FMCW Chirp Sequence Processing for Velocity Estimation and Ambiguity Resolving  
Tarik Kazaz

<p><b>WE-A5.3(4)</b> - 245: Clutter Rank Estimation for Airborne Frequency Diversity Array Radar under Range Ambiguity Shengyao Chen</p>
<p><b>WE-A5.3(5)</b> - 252: Doppler/Angle Coupling and Rejection for Slow-Time Phase Codes in MIMO Radar Olivier Rabaste</p>
<p><b>WE-A5.3(6)</b> - 102: Sequential Multi-model Unscented Kalman Filter for Shipborne High Frequency Surface Wave Radar Longyuan Xu</p>
<p><b>WE-A5.3(7)</b> - 129: Bayesian Filtering and Smoothing with Unknown Measurement Noise Covariance Eray Laz</p>
<p><b>WE-A5.3(8)</b> - 236: Factors Affecting the Effective Clutter Rank for Planar and Conformal Antennas with Subarrays Svante Björklund</p>
<p><b>WE-A5.4(1)</b> - 218: An Intelligent Jamming Strategy Design Method Against Frequency Agility Radar Boyang Yang</p>
<p><b>WE-A5.4(2)</b> - 62: Radio Frequency Interference Suppression by Adaptive Filter Design for High-Frequency Radar Zhongtao Luo</p>
<p><b>WE-A5.4(3)</b> - 72: Multiple Mainlobe Jamming Suppression via Eigen-Projection Processing Blind Source Separation Algorithm Yipin Liu</p>
<p><b>WE-A5.4(4)</b> - 204: Anti-jamming Equilibrium Strategy Learning of Frequency Agile Radar based on Monte Carlo Tree Search Chao Wang</p>
<p><b>WE-A5.5(1)</b> - 92: Angular dependence of RCS enhancement due to phase screens David Belcher</p>
<p><b>WE-A5.5(2)</b> - 272: Differential Phase Correction of Dual-polarization Weather Radar with Slotted Waveguide Antenna Xiaomeng Zhao</p>
<p><b>WE-A5.5(3)</b> - 292: The Ingara Real-Time Demonstrator Elliot Hansen</p>
<p><b>WE-A5.5(4)</b> - 259: Impact of supervised reciprocal filter on clutter cancellation in OFDM radar Andrea Quirini</p>
<p><b>WE-A5.5(5)</b> - 193: Vector-sensing antenna for measuring the direction of arrival of ionospherically propagated HF radio signals Lenard Pederick</p>
<p><b>WE-A5.6(1)</b> - 222: An Inverse Reinforcement Learning Method to Infer Reward Function of Intelligent Jammer Youlin Fan</p>

**WE-A5.6(2)** - 253: A Cognitive Radar Anti-Jamming Strategy Generation Algorithm based on Dueling Double DQN  
Aofei Lei

**WE-A5.6(3)** - 124: A novel jamming signal recognition method based on data augmentation using 1D-GAN under small sample condition  
Lei Yu

**WE-A5.6(4)** - 57: HFSWR Clutter Recognition Based on Attention DCNN  
Yinsheng Wei

**WE-A5.6(5)** - 215: Lightweight CNN for HRRP Recognition Based on Attention Mechanism Structured Pruning  
Zhilong Zhang

**International Radar Conference 2023**  
**MONDAY 06 November 2023 - FRIDAY 10 November 2023**  
**ICC Sydney**

**Thursday, 09 November 2023**

	<b>Cockle Bay</b>	<b>C3.2</b>	<b>C3.4</b>	<b>C3.5</b>
	<b>Cockle Bay : Plenary 3</b> <b>Sponsored by BAE Systems</b> <b>Session Chair: Marco Martorella</b>			
<b>8:50</b>	Plenary 1 - Prof Hugh Griffiths <b>UCL and UK MOD</b> <b>UK MOD Future Sensing Program</b>			
<b>9:25</b>	Plenary 2 - Dr Carl Seubert <b>SmartSat CRC, Australia</b> <b>An overview of SmartSat CRC and space-based radar research projects</b>			
<b>10:00</b>	<b>Morning Tea</b>	<b>Morning Tea</b>	<b>Morning Tea</b>	<b>Morning Tea</b>
<b>10:30</b>	<b>Cockle Bay : TH-M1</b> <b>Innovative Radar Systems 1</b> <b>Sponsored by Australian Department of Defence</b> <b>Session Chairs: Frank Robey &amp; David Holdsworth</b>	<b>C3.2 : TH-M2</b> <b>[Special Session] NovaSAR-1 and Other SAR Applications in Australia</b> <b>Session Chairs: Zheng-Shu Zhou &amp; Catherine Ticehurst</b>	<b>C3.4 : TH-M3</b> <b>Modelling and Simulation</b> <b>Session Chairs: Mark Davis &amp; Brian Ng</b>	<b>C3.5 : TH-M4</b> <b>Target Classification and Recognition</b> <b>Session Chairs: Alessio Balleri &amp; William Baxter</b>
<b>10:30</b>	<b>TH-M1.1</b> - 233: Dual-Mode FMCW Harmonic Radar Supporting Auxiliary Transmitter Operation <b>Mr Greg STORZ</b>	<b>TH-M2.1</b> - 119: Mapping flood events across Australia using NovaSAR-1 and Sentinel-1 <b>Dr Catherine TICEHURST</b>	<b>TH-M3.1</b> - 160: Analysis of coherent radar sea clutter with combined wind driven sea and swell <b>Dr Mark PREISS</b>	<b>TH-M4.1</b> - 140: Data Segmentation and Fusion for Classification of Armed Personnel Using Micro-Doppler Signatures <b>Mr Edoardo FOCANTE</b>



10:50	<b>TH-M1.2</b> - 203: Design of a Multilayer Longitudinally Compact UWB 3-dB Microwave Coupler using Multiple Apertures <b>Mr Ahmad BILAL</b>	<b>TH-M2.2</b> - 123: The Australian Bureau of Meteorology's requirements for Synthetic Aperture Radar data <b>Dr Helen BEGGS</b>	<b>TH-M3.2</b> - 247: MATLAB-based Multistatic Passive Radar Demonstrator <b>Prof Mateusz MALANOWSKI</b>	<b>TH-M4.2</b> - 302: Micro-Doppler Power Analysis for Drone Discrimination <b>Prof Douglas GRAY</b>
11:10	<b>TH-M1.3</b> - 130: Ground-based Surveillance and Classification Radar for Wildlife Protection <b>Mr Robert BERNDT</b>	<b>TH-M2.3</b> - 216: Machine learning methods for 1 km soil moisture retrieval from Sentinel-1: an evaluation with limited training samples <b>Mr Ziwei XIONG</b>	<b>TH-M3.3</b> - 125: Calibration of a Radar Cross-section Model Using a Surrogate Model Optimization Algorithm <b>Dr Thomas HOURET</b>	<b>TH-M4.3</b> - 276: Privacy-Preserving Speaker Recognition Using Radars for Context Estimation in Future Multi-Modal Hearing Assistive Technologies <b>Mr Muhammad FAROOQ</b>
11:30	<b>TH-M1.4</b> - 180: Mirror Scanners for Panoramic Millimetre Wave Radars <b>Dr Graham BROOKER</b>	<b>TH-M2.4</b> - 282: NovaSAR-1 Operational Updates and its Analysis Ready Data Production <b>Dr Zheng-Shu ZHOU</b>	<b>TH-M3.4</b> - 277: Development of an Open-Source Tool for Consistent Comparisons of Geolocation Algorithms <b>Dr Nicholas O'DONOUGHUE</b>	<b>TH-M4.4</b> - 268: Fast classification of drones and birds with an LSTM network applied to 1D phase data <b>Dr Samiur RAHMAN</b>
11:50		<b>TH-M2.5</b> - 295: Deep learning for three dimensional SAR imaging from limited viewing angles <b>Dr Jan Rainer JAMORA</b>	<b>TH-M3.5</b> - 75: Clutter Modeling and Analysis for Bistatic Space-Based Early Warning Radar with GEO Transmitter and LEO Receiver <b>Dr Xingjia YANG</b>	
12:10	Lunch Break	Lunch Break	Lunch Break	Lunch Break
	<b>Cockle Bay : TH-A1</b> <b>Innovative Radar Systems 2</b> <b>Sponsored by BAE Systems</b> <b>Session Chairs: Nathan Goodman &amp; Hugh Griffiths</b>	<b>C3.2 : TH-A2</b> <b>[Special Session] OTH Radar</b> <b>Session Chairs: Van Khanh Nguyen &amp; Thayananthan Thayaparan</b>	<b>C3.4 : TH-A3</b> <b>Radar Environment and Phenomenology</b> <b>Session Chairs: Ben Wilcox &amp; Mateusz Malanowski</b>	<b>C3.5 : TH-A4</b> <b>[Special Session] Radar Intelligent Processing</b> <b>Session Chairs: Lan Lan &amp; Guolong Cui</b>

13:20	BAE Systems Industry Talk	<b>TH-A2.1</b> - 85: Ionospheric variance models: impacts on over-the-horizon radar performance prediction <b>A/Prof Manuel CERVERA</b>	<b>TH-A3.1</b> - 41: <i>New results on the Weibull distribution and Weibull sums, with application to radar sea clutter</i> <b>Dr Josef ZUK</b>	<b>TH-A4.1</b> - 98: Multi-polarization Features Fusion Detection of Marine Small Targets based on LSTM <b>Ms Yumiao WANG</b>
13:40	<b>TH-A1.2</b> - 307: An Investigation Of Turbulence Driven Evaporative Duct Modelling <b>Dr Hedley HANSEN</b>	<b>TH-A2.2</b> - 121: Compensational Clutter Mitigation for Periodic Modified BFSK Waveforms in HF OTHR <b>Dr Ben A JOHNSON</b>	<b>TH-A3.2</b> - 163: Doppler Characteristics of Sea Clutter at K-band and W-band: Results from the St Andrews and Coniston Water Trials <b>Dr Samiur RAHMAN</b>	<b>TH-A4.2</b> - 286: Deep Learning for Radar Waveform Design: Retrospectives and the Road Ahead <b>Dr Vishal MONGA</b>
14:00	<b>TH-A1.3</b> - 141: Combining Radar Acoustic Sounding and Schlieren Imaging to Quantify Close-in Air Turbulence <b>Ms Samantha GORDON</b>	<b>TH-A2.3</b> - 120: Over-The-Horizon Radar Frequency Management System using the Assimilation Canadian High Arctic Ionospheric Model (ACHAIM) <b>Dr Thayananthan THAYAPARAN</b>	<b>TH-A3.3</b> - 25: <i>Measurements of foliage attenuation using a drone</i> <b>Mr Stéphane SAILLANT</b>	<b>TH-A4.3</b> - 316: DNN-based Beamforming for Mainlobe Interference Mitigation <b>Lan Lan</b>
14:20	<b>TH-A1.4</b> - 153: Latest Airborne Imaging System Development and Capacities in ONERA <b>Mr Remi BAQUE</b>	<b>TH-A2.4</b> - 294: Mitigating range-ambiguous clutter impact in pseudo-a-periodic waveforms using adaptive processing <b>Dr Sandun KODITUWAKKU</b>	<b>TH-A3.4</b> - 192: Area Preserving Linear Transformations and Spread Doppler Clutter Mitigation in Over-the-Horizon Radar <b>Dr Stephen HOWARD</b>	<b>TH-A4.4</b> - 320: Intelligent Suppression of Interferences Based on Retroactive-DQN <b>Lan Lan</b>

14:40	<p><b>TH-A1.5</b> - 74: A Drone-Based 0.7-4.7 GHz FMCW Radar System for High-Resolution Exploration of Subsurface Glacier Structures  <b>Mr Michael STELZIG</b></p>	<p><b>TH-A2.5</b> - 341: iFURTHER Project - A Cognitive Network of HF Radars for Europe Defence  <b>Mr Stéphane SAILLANT</b></p>	<p><b>TH-A3.5</b> - 150: <i>Amplitude Distribution of Low Grazing Angle G-band Littoral Sea Clutter</i>  <b>Mr Aleksanteri VATTULAINEN</b></p>	<p><b>TH-A4.5</b> - 340: Graph Data and GCN Based Maritime Target Detection of Multi-frame Scanning Radar  <b>Lan Lan</b></p>
15:00				
15:30	Closing Drinks with INDOPAC			
16:30				

International Radar Conference 2023  
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Friday, 10 November 2023

	<b>C3.2</b>	<b>C3.3</b>	<b>C3.4</b>	<b>C3.5</b>
	<i>FR-M1</i>	<i>FR-M2</i>	<i>FR-M3</i>	<i>FR-M4</i>
<b>08:00</b>	Computational Methods in Radar Imaging <b>Dr Petros Boufounos and Dr Hassan Mansour</b>	Deep Learning for Advanced Radar Automatic Target Recognition (ATR) <b>Dr Uttam Majumder</b>	PCL radar – from theory to operational radar systems and future applications <b>Prof Mateusz Malanowski, Dr Steffen Lutz and Prof Piotr Samczynski</b>	Design, Simulation, Analysis, and Testing of Radar Systems <b>Mr Sumit Garg, Mr Satish Thoklala and Dr Ying Chen</b>
<b>09:45</b>	<b>Morning Tea Break</b>	<b>Morning Tea Break</b>	<b>Morning Tea Break</b>	<b>Morning Tea Break</b>
<b>10:15</b>	Computational Methods in Radar Imaging <b>Dr Petros Boufounos and Dr Hassan Mansour</b>	Deep Learning for Advanced Radar Automatic Target Recognition (ATR) <b>Dr Uttam Majumder</b>	PCL radar – from theory to operational radar systems and future applications <b>Prof Mateusz Malanowski, Dr Steffen Lutz and Prof Piotr Samczynski</b>	Design, Simulation, Analysis, and Testing of Radar Systems <b>Mr Sumit Garg, Mr Satish Thoklala and Dr Ying Chen</b>
<b>12:00</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>	<b>Lunch Break</b>