

Tuesday 22nd, October				
PLENARY SESSION				
Grand Auditorium				
9:00 Welcome session (Myriam NOUVEL, Rémy BAQUÉ, Jacques CLAVERIE, Stéphane KEMKEMIAN)				
9:25 DGA - AID (Defence Innovation Agency) - Patrick AUFORT				
9:45 ONERA (French Aerospace Lab) - Antoine GODARD				
10:05 THALES (Land and Air Systems) - Pierre FOISSIER				
Tea/coffee break 10:25				
11:10 The SWOT (Surface Water and Ocean Topography) Mission – Technological and Scientific Breakthroughs - Roger FJØRTOFT (CNES)				
11:50 Turning a few I/O commercial radar chipset at 7GHz into a 4D imaging radar using reconfigurable intelligent surfaces - Geoffrey LEROSEY (GreenerWave)				
Lunch Break 12:30				
ORAL SESSIONS				
Room	Le Carré	Salles (3&4)	Salle (5&6)	
Session Name	Special Session: Artificial Intelligence for Radar	Cognitive Radar & waveform design	Weather Radar & OTH/HF Radar	
14:00	Towards Optimum Drones Track-to-Track Dynamic Fusion Using LSTM	A resource management approach for concurrent operation of RF functionalities	Key Challenges in True Multistatic OTH Radar Concepts based on HF-Radar in iFURTHER	
14:20	Radar/Optro Meta-sensor: Augmented Radar Tracking Performances by Adaptive Camera Resources Allocation	Distributed Quality of Service Multi-Sensor Resource Allocation Model	Bistatic Denial for HF Skywave Radar	
14:40	Enhancing Joint Probabilistic Data Association with LSTM-Based Clutter Filtering for Improved Radar Target Tracking	Non-coherent Cognitive Technique For Frequency Selective Jamming	Differentiating Tsunamis from Atmospheric-Induced Events Using Coastal High-Frequency Radars	
15:00	Radar with Open Set Recognition Using Hierarchical Prototype Learning	Improving Doppler Robustness for Optimized Complementary FM Waveform Subsets	Application of Circular Statistics on the Weather Radar Doppler Spectrum	
15:20	Highly Maneuvering Target Tracking with a Transformer Network	Analysis of Spectrally Efficient Random FM Radar Waveforms	Multi-Sensor Data Fusion Based on Millimeter Radar and Laser Disdrometer	
Tea/coffee Break 15:40				
Room	Le Carré	Salles (3&4)	Salle (5&6)	
Session Name	Special Session: Multistatic radar and radar networks	Artificial Intelligence/Machine Learning (1)	Antenna & front-end	
16:10	Ship-borne 3D ISAR Imaging	A Multi-Channel Convolutional Neural Network Based Target Detection Approach For Coastal Surveillance Radars	Identifiability Analysis of Non-Integer Antenna Arrays in the Presence of Mixed (Strong and Weak) Signals	
16:30	Analysis on the Impact of a Clustered Multistatic Radar Network on Target Localization Accuracy	Investigating SAR Data Denoising: A Comparative Analysis of CNN Models with Multi-Channel Signal Processing Features	Phase Synchronization of Distributed Array Radar based on Minimum Entropy Method	
16:50	Exploitation of man-made objects shadows in multi-perspective drone-borne based SAR images: preliminary experimental results	Classification of micro-Doppler signatures with the use of orthogonal moment-based features	ONERA Array Antenna Development in the CROWN Project: A Demonstrator for enhanced EM Multifunction Systems Operating at 5-18 GHz	
17:10	Bio-inspired Waveform in a Multistatic Configuration	Radar Signal Denoising for ISAR Imaging Using Complex-valued Neural Network	Design and Implementation of an Agile L-Band Frequency Synthesizer for Modern Radar Systems	
17:30	Cognitive Approaches in Radar Networks	Synthesis of Through-Wall Micro-Doppler Signatures of Human Motions Using Generative Adversarial Networks	Time-Modulated Array Based Linear Frequency Modulation Radar	
17:50 SESSIONS END				
19:00 Welcome Reception at the "Hôtel de ville de Rennes"				
Wednesday 23rd, October				
ORAL SESSIONS				
Room	Le Carré	Salles (3&4)	Salle (5&6)	
Session Name	Special Session: Emerging Trends in Machine Learning for Polarimetric and/or Interferometric SAR Imaging	Drone detection	Phenomenology: characterization and systems	
8:30	Adversarial Perturbations in Pol-ISAR Image Classification: A Study on Explanation Consistency and Ensemble Learning	Real-Time Bistatic Noise Radar with Adaptive Beamforming	Over-the-horizon surface wave radar: from the maritime target point-of-view	
8:50	PoISAR Classification for Coastal Areas Using Neural Networks: A New Method	Micro-Doppler Signature Classification of Unmanned Aerial Vehicles Using FMCW Radar	Radar electromagnetic scattering from a dielectric with a rough face	
9:10	Advancements in Space Object State Estimation During Constant Thrust Maneuver Using Distributed Sensor Networks: A Radar Based Approach	FMCW Radar system for UAV tracking and identification by MDS recognition	Numerical Analysis of the MM-Wave Scattering from Randomly Rough Surfaces	
9:30	Decimeter-resolution PoISAR image segmentation using Segment Anything Model	Rotation rate estimation of dual propellers drones	SWALIS, KaRADOC and HOMARDS: a suite of airborne radars to support satellite earth observation missions	
9:50	Interpreting Oil-Spill Mapping DNN: A Case Study with Hybrid-pol SAR Data		SWOT Cal/Val Campaign based on the SWALIS airborne sensor: Comparison of o0 over the Rhine	
Tea/coffee Break 10:10				
Room	Le Carré	Salles (3&4)	Salle (5&6)	
Session Name	Special Session: SONDRRA - France-Singapore Lab 20 years of collaboration in Radar	Passive Radar	MIMO Radar	
10:40	Deep-learning Based Wall Mitigation Method for Through-the-wall Radar Imaging	Multistatic Data Fusion for GNS-Base Air-to-Air Passive Radar	Design Method of MIMO Subarrays Sparse Layout for Wide Aperture Radar Imaging	
11:00	VAE Latent Traversal for Radar Clutter Suppression	Target Localisation in Real Time for Non-Coherent First Targets from Airborne Passive Radar	Joint Design of Transmit Waveform and Receive Filter for Deceptive Jammer Suppression with FDA-MIMO Radar	
11:20	Preserving polarimetric properties in PoISAR image reconstruction through Complex-Valued Auto-Encoders	Measurements And Aircraft Detection Exploiting Digital TV Broadcast Signals	Investigation of a 3D MIMO TDM FMCW Radar	
11:40	Multi-Frequency GNSS monitoring and analysing the ionospheric scintillation effects for L-band SAR	Protection of Critical Infrastructure using LTE450-based Passive Radar: Range Measurements for Drone Detection	Unsupervised Learning for Forward-Looking MIMO SAR Reconstruction based on U-Net	
12:00	SAR time series for under canopy detection	MicroDoppler Drone Identification in DVB-T Passive Radar	An Estimation-Theoretic Approach to Joint Antenna Placement and Power Allocation in Collocated MIMO Radar	
Lunch Break 12:20				
Room	Le Carré	Salles (3&4)	Salle (5&6)	
Session Name	Special Session: Historical session	Multistatic Radar & Radar Network	Simulation for Radar systems	
13:40	Radar Prehistory	Aspects of Operating Low-Cost Bistatic Radar Transmitters	Ensuring simulation continuity in radar and electronic warfare simulation	
14:00	The AN/AP5-20 radar in use with the British FAA and RAF	Aircraft attitude estimation using simultaneous monostatic and bistatic ISAR images	High Performance Simulation of Spaceborne Radar for Remote Sensing Oceanography: Application to an Albatross Scenario	
14:20	Tests of the German Radar System in the Bristol Harbour Area, in View of the Operation Cerberus (February 18, 1942)	Joint Trajectory Optimization and Power Allocation for Target Tracking in Airborne Radar Network with Missing Data	EMPRISE: Synthetic Environment for sensor design and virtual qualification	
14:40	On the development of airborne radar in Italy and its evolution into the digital era	Minimum Redundancy Wavenumber Illumination for FDM MIMO spaceborne SAR Tomography	Large-Scale SAR Image Simulation using EMPRISE™ Software Compared to Real Image acquisitions with SETHI airborne Platform over the Sainte-Marie-la-Mer coast	
15:00	RDI, 1st French airborne pulse doppler radar - advances in digital processing	Feasibility Study for a Multichannel Forward Scatter Radar Exploiting Amplitude-based Array Processing	Synthetic RAW data generator for ESA HARMONY mission	
Tea/coffee Break 15:20				
POSTER SESSION				
La Mezzanine				
Session Name	RADAR SIGNAL PROCESSING METHODS			
	Artificial Intelligence/Machine Learning	Radar Imaging	Detection/estimation	Advances in signal processing
15:40	Radar/MOTR: Multi-Object Tracking with Transformers on Range-Doppler Maps	A Novel Radar Forward-Looking Three-Dimensional Imaging Algorithm on Moving Platform Based on Vortex Electromagnetic Wave	Target range angle and velocity estimation method for FDA-MIMO radar	Parameter Optimization of the BIC System Used in HFSWR to Improve Detection-Finding
	TS-SCAN: A Density-Based Clustering Method for Trajectory Analysis and Anomaly Detection	Experimental Results on Co-registration for Multitemporal ICEYE SAR Images	Velocity Filtering Based Track-Before-Detect With Range And Doppler Ambiguities in Doppler Radars	Phase Correction Method for Coherent Processing of Quasi-coherent MIMO Radar Networks
	Searching Efficient Deep Architectures for Radar Target Detection using Monte-Carlo Tree Search	Thz SAR Monostatic and Bistatic 3D Global Backprojection Algorithms with Phase Control	Two-stage Bayesian Radar Signal Identification with Multidimensional Mixture Distribution Model	Iterative Capon Estimation for Saturated Forward Jamming Suppression with MIMO Radar
	Object Relevance for Radar Object Detection on Autonomous Driving Scenarios	Generalized Polar Format Algorithm for imaging complex target motion	A DOA Estimation Algorithm with No Angle Ambiguity for SULA of FMCW Radar	Adaptive Interference Mitigation for Time-Varying Narrowband Interference in Automotive CS radars
	SAR-to-Optical Image Translation Using Conditional Denoising Diffusion Probabilistic Models	Microlocal Analysis of Multistatic Radar Imaging	Orbital Angular Momentum Based Monopulse Angle Estimation against Cross-eye Jamming	Experiments towards Cognitive Micro-Doppler Radar: Detection of Aircrafts' Micro-Doppler Signals with Varied CPis and PRIs
	Noise Radar Waveform Design: Preliminary Results for a MOEA Approach	Assessing Landslides Triggered by Earthquakes in Mid-Northeast Algeria Using Small Baseline Time-Series InSAR Approach	Resolving Velocity Ambiguity via Virtual Error Compensation in Multi-Domain Coding Radar	Main-lobe Interference Suppression Algorithm Based on TF-RobustICA
	A Machine Learning Approach to Helicopter Open set Classification based on Micro-Doppler Signatures	Change Detection in Polarimetric and Multilook SAR imagery using Stochastic Distance	Differential Evolution Algorithm to jointly estimate the target parameters in a MIMO OFDM DFRC system	Collaborative Low-Altitude Air Traffic Control Under Communication Constraints in Integrated Sensing and Communication Networks
	Synthesizing SAR Images with Generative AI: Expanding to Large-Scale Imagery	Soil Moisture Retrieval Based On Improved Change Detection Method Using Sentinel-1 Data	Distributed Detection with Locally Quantized Test Statistics of Doppler Channel Maximum	Self-Supervised SAR Image Denoising Method for Ship Target Detection
	Federated Learning for Radar Systems - Sharing Knowledge without sharing Data	FOCALISATION: A Versatile and Efficient Tool for Raw Data Analysis and Radar Image Formation	Low Probability of Interception Radar Signal Detection, Comparison of a YOLOV8 Model and a Conventional Signal Processing Method	
	Deep Learning Assisted Radar Jamming Detection from Target Returns for Joint Radar Communication Systems		High Accuracy DOA Estimation Based on Distributed 2D Nested Array	
16:30 Salles (3&4)				
17:30 In Memoriam M.-H. Carpentier (V. Blanchard and M. Leconte) SESSIONS END				
Thursday 24th, October				
ORAL SESSIONS				
Room	Le Carré	Salles (3&4)	Salle (5&6)	
Session Name	Artificial Intelligence/Machine Learning (2)	Advances in Radar Signal Processing (1)	Advances in Radar imaging (systems)	
8:30	Beyond Accuracy: Evaluating Model Reliability for Target Radar Image Classification Using SHAP	Symplectic Geometry in Radar: 2-Form of Maxwell Equations and Wigner/Woodward Ambiguity Function	120 GHz and 240 GHz Si-Ge FMCW radar for high resolution close range SAR imaging	
8:50	Explaining SAR ATM Models Predictions with Counterfactual Explanations	Width Measurement by Partial Convolution of Radar Signals in Spectral Domain	EPiK-SAR: Embedded radar Platform in Ku-band for SAR applications	
9:10	Exploiting Sparsity in Automotive Radar Object Detection Networks	Micro-Doppler Super-Resolution Using Iterative Adaptive Approach	LATEST UPGRADES ON SAR-LIGHT, ONERA'S UAV-EMBEDDED SAR TOOL	
9:30	Experimental comparison of unsupervised methods for deinterleaving pulse trains	Experimental Demo of Range Disambiguation via Slow-Time Coding & Repetitive Super-Resolution	Hybrid SAR/ISAR Imaging with VHR spaceborne data for inland waterways surveillance	
9:50	Training Deep Learning Models with Hybrid Data sets for Robust Automatic Target Detection on real SAR images	Coherent Accumulation of Random Frequency and Pulse Repetition Interval Agile Radar		
Tea/coffee Break 10:10				
Room	Le Carré	Salles (3&4)	Salle (5&6)	
Session Name	Detection and estimation	Advances in Radar imaging (processing)	Automotive Radar	
10:40	An Improved Total Least Squares-Based Monopulse Ratio Estimate Given Multiple Data-Snapshots from a Uniform Line Array	Determination of Absolute Interferometric Phase in Circular InSAR Based on Demons Algorithm and Dual-angle Observation	Applying a Biprism in Radar Test Ranges for Angular Measurements	
11:00	Detection of Power Increasing Noise-Like Smart Jammers	A New wide-swath imaging and ground moving-target imaging scheme for MIMO-SAR based on an-multiphase coding	Radar Spectra-Language Model for Automotive Scene Parsing	
11:20	Target Focused Estimation of Rotating Objects in the Multistage Wiener Filter	Space Domain Awareness (SDA)	Wavelet Network for Radar Target Classification	
11:40	CFAR Detection in Heterogeneous K-Distributed Sea-Clutter Background	Thz ISAR Imaging of Space Target with Vibration Compensation	Distributed Automotive Microwave Imaging	
12:00		Data Fusion Strategies for Improved SAR image classification	Automotive Radar Maps by Data Augmentation Bandwidth Spreading With Range Cell Migration in FMCW Automotive Radar	
Lunch Break 12:20				
Room	Le Carré	Salles (3&4)	Salle (5&6)	
Session Name	Spectrum sharing	Future trends in Radar system	Advances in Radar signal processing (2)	
13:40	OFDM-DFRC Waveform Design Based on Mutual Information in Presence of Doppler	A Photonic MultiBand Radar Transmitter Architecture with Tailored Nonlinear Transmitter Line	Vertex-oriented Metaheuristic for Radar Lobe Detection in Electronic Warfare Context	
14:00	Experimental Demonstration of HOW TO ADDRESS THE ASSOCIATED CHALLENGES?	RADAR COLLABORATION: HOW TO ADDRESS THE ASSOCIATED CHALLENGES?	Performance Analysis of Joint Detection and Delay Doppler Estimation Algorithm for MIMO Radars	
14:20	Sparse Vector-Antenna Array Design for Dual-Functional Radar and Communications	Quantum Computing for Partition Function Estimation of a Markov Random Field in a Radar Anomaly Detection Problem	Generative Multi-View HRRP Recognition Based on Cascade Generation and Fusion Network	
14:40	Target Range and Velocity Estimation for Joint Radar and Communications with Up and Down Chirps	Quality-of-Service Based Radar Resource Management for Concurrent SAR Imaging Modes	Standardization of Residuals for Detection of Unknown Target Classification of SAR images	
15:00	Radar and communication system co-design using Sparse Time-Frequency Estimation	Field-trial demonstration of Broadband Microwave Photonic TDM-MIMO Radar	Sub-Surface Target Detection Using Sparse Time-Frequency Estimation	
Tea/coffee Break 15:20				
La Mezzanine				
POSTER SESSION				
Session Name	RADAR SYSTEMS AND APPLICATIONS			
	Special Session: Future agenda for innovation and defence	Applications	Radar systems and antenna	Phenomenology
15:40	Simulation of buried objects Radar Cross Section (RCS) using a Hybrid Finite Volume Method: Experimental validation through RCS measurements of a PEC sphere	Reliable Traffic Monitoring Using Low-Cost Doppler Radar Units	Segmentation and Classification of Solid Construction Waste with mmWave Imaging	Filters Design that Mitigate Pulse Eclipsing Modulation of Pulse Agile Waveforms
	CRUSOE: A Low SwaP UWB Optoelectronic Radar Demonstrator	Exploring Short-Term Bird Behavior in a Local Area Using Phased-Array Avian Radar	A Magnetron with Two RF Energy Outputs for Advanced Radar Systems	OP-RBC-based STAP Method for Clutter Suppression in Bistatic End-fire Array Airborne Radar
	Pattern Synthesis Based on Numerical Optimization for Conformal Multi-source Antenna	Receiving Beamwidth Constraint	Comparative Analysis of Deep Learning Methods for Unmanned Aerial Vehicles (UAVs) Recognition and Identification Using Micro-Doppler Signatures	Realistic Terrains Investigation on Micromotion Characteristics of Trimeter and Corner Reflector Based on the Motion of Six Degrees of Freedom
	Adaptive Multichannel Scanning Strategies for Electronic Support Using Multi-Armed Bands	Composite metasurface for surface wave radar enhancement	Adaptive Detectors for Moving Platform based Distributed Coherent Aperture Radar	2D Spatial-Temporal Simulation of GPR Penetration in the 200-400MHz Band for Detecting Voids and Entrapped Persons in Multi-Layered Collapsed Building Structure
	Classification of Radar Pulses Modulation Laws via Convolutional Neural Networks	Single Snapshot Multi-angle Target 2D Reconstruction based on RANSAC and RAM		
	High-Frequency Surface Wave Radars in the Mediterranean Sea: civil and environmental applications	ROKI: a small compact vertically-pointing X-band radar Doppler for atmospheric profiling	ESTAR Multipath Angle Estimation for Sparse Array MIMO Radar	
	Hybrid CRF for Initial and Current States of Discrete-Time Markovian Dynamic Systems	Detection of wheelchairs in indoor and public spaces with a single element antenna receiver	RIS-aided Positioning and Interference Cancellation with a single element antenna receiver	
	Iterative Physical Optics Model for Near Field Backscattering from Dielectric and Lossy Targets	Analysis and Simulation of Near Field Effects for Widely Separated Coherent FMCW Radar Networks	An L-band Bistatic Radar: Experimental System and Measurement Campaign	
	Platform for Direction of Arrival measurements considering complex scenario - Application to Radome Evaluation		Covariance Estimation of Generalized Monopulse for Radar Tracking	
	AMBRAR project: Cognitive multistatic radar for aerial target detection in urban areas		Transmit-Receive Beamforming for Sparse-FDA with Sinusoidal Frequency Offsets	
	SAR image simulation with ionospheric phase screen			
	The 3D-MAGiC project: Design and production of electromagnetic absorbers using 3D printing			
17:00 SESSIONS END				
18:15/18:30 Gala Dinner DEPARTURE				