



FUSION 2023

Monday, June 26, 2023

Bootcamp [Ticketed Event]	
07:30 - 08:30	Introduction to Information Fusion (Jenkins/King Charles) <i>Erik Blasch</i>
08:30 - 09:30	Estimation in Information Fusion (Jenkins/King Charles) <i>W. Dale Blair</i>
09:30 - 09:45	Break [Ticketed Event - Bootcamp Only]
09:45 - 10:45	Data Association (Jenkins/King Charles) <i>Stefano Coraluppi</i>
10:45 - 11:45	Distributed Target Tracking (Jenkins/King Charles) <i>Felix Govaers</i>
11:45 - 12:45	Lunch [Ticketed Event - Bootcamp Only] (Cypress/Dogwood)
12:45 - 13:45	Fusion and Association with Attributes/Classification (Jenkins/King Charles) <i>Yaakov Bar-Shalom</i>
13:45 - 14:00	Break
14:00 - 15:00	Distributed Inference and Information Fusion (Jenkins/King Charles) <i>Pramod Varshney</i>
15:00 - 16:00	High-level Fusion (Jenkins/King Charles) <i>Lauro Snidaro, Erik Blasch</i>
16:00 - 18:00	IEEE Young Professionals Networking Reception (Rotunda)
19:00 - 21:00	Fusion 2023 Organizers Event [Ticketed Event] (Schooner Pride: Dockside behind Aquarium)

Tuesday, June 27, 2023

Morning Tutorials [Ticketed Event]	
08:00 - 11:30	2A - High-Level Information Fusion Theory meets AIM (Colleton) <i>Erik Blasch</i>
	2B - An Introduction to Track-to-Track Fusion and the Distributed Kalman Filter (Ansonborough) <i>Felix Govaers</i>
	2C - Multitarget Tracking and Multisensor Information Fusion: Recently Developed Advanced Algorithms (Harleston) <i>Yaakov Bar-Shalom</i>
	2D - Graph-Based Localization, Tracking, and Mapping (Jenkins/King Charles) <i>Erik Leitinger, Augustin Saucan, Florian Meyer</i>
	2E - Estimation and Tracking of Graph Signals (Cannonborough) <i>Tirza Rautenberg</i>
	2F - Systematic Filter Design for Tracking Maneuvering Targets: Getting Guaranteed Performance Out of Your Sensors (Drayton) <i>W. Dale Blair</i>
	11:30 - 13:00 Lunch [Ticketed Event - Tutorial Participants Only] - (Cypress/Dogwood)
Afternoon Tutorials [Ticketed Event]	
13:00 - 16:30	3A - Deep Learning for Multispectral, Multiresolution and Multisensor Data Fusion (Drayton) <i>Fahimeh Farahnakian, Luca Zelioli, Pouya Jafarzadeh</i>
	3B - The Basics of Belief functions (and more) (Jenkins/King Charles) <i>Dan Harris</i>
	3C - Algorithms for Estimation of Noise Parameters in State Space Models (Harleston) <i>Ondřej Straka, Jindřich Duník</i>
	3D - Quantum Computing and Quantum Physics Inspired Algorithms: Introduction and Data Fusion Examples (Colleton) <i>Felix Govaers, Martin Ulmke</i>
17:00 - 19:00	Ice Breaker [Guest: Ticketed Event] - (Market Street Circle)

Wednesday, June 28, 2023

08:00 - 09:15 4: Plenary - Henrik Christensen, Multi-Sensory Fusion for Micro-Mobility (Ballroom)					
09:15 - 09:30 Break (Grand Hall)					
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 5					
09:30 - 10:45	5A: Graph Tracking I <i>Florian Meyer</i>	5B: (SS7) Information Fusion for Situation Understanding and Sense-making I <i>Lauro Snidaro</i>	5C: (SS9) Advanced Nonlinear Filtering I <i>Uwe Hanebeck</i>	5D: Computer Vision I <i>Nageswara Rao</i>	5E: Sensor Management I <i>Chee-Yee Chong</i>
	09:30 - Multipath-based SLAM with Multiple-Measurement Data Association (8273) <i>Lukas Wielandner*, Alexander Venus, Thomas Wilding and Erik Leitinger</i>	09:30 - Deep classifiers evidential fusion with reliability (2910) <i>Michele Somero*, Lauro Snidaro and Galina Rogova</i>	09:30 - Fault Detection in Resilient Time Provision (1433) <i>Jindrich Dunik*, Ladislav Kral, Ivo Puncochar, Ondrej Straka, Oleksandr Lushchikov and Ondrej Daniel</i>	09:30 - Robust Face Morphing Attack Detection Using Fusion of Multiple Features and Classification Techniques (9662) <i>Jag Mohan Singh, Sushma Venkatesh and Raghavendra Ramachandra*</i>	09:30 - Dual Control Inspired Active Sensing for Bearing-Only Target Tracking (1440) <i>Timothy J. Glover*, Cunjia Liu and Wen-Hua Chen</i>
	09:55 - On Multitarget Tracking with Possibly Unresolved Measurements (8483) <i>Augustin Saucan* and Florian Meyer</i>	09:55 - On the Use of Real-Time Multi-Object Detection and Classification for Automated Assessment of Operator Visual Attention Allocation (5670) <i>Minseop Choi and Thanuka Wickramaratne*</i>	09:55 - Nonlinearity-Aware Partial-Update Schmidt Kalman Filter (1917) <i>J. Humberto Ramos* and Kevin Brink</i>	09:55 - MCTNet: A Multi-Scale CNN-Transformer Network for Change Detection in Optical Remote Sensing Images (9714) <i>Weiming Li*, Lihui Xue, Xueqian Wang and Gang Li</i>	09:55 - Target search with a radar on an airborne platform (9297) <i>Hugo Vaillaud*, Claire Hanen, Emmanuel Hyon and Cyrille Enderli</i>
	10:20 - Belief propagation for marginal probabilities in multiple hypothesis tracking (9463) <i>Odin Aleksander Severinsen*, Lars-Christian Ness Tokle and Edmund Førland Brekke</i>	10:20 - UAV airframe classification based on trajectory data in UTM collaborative environments (9979) <i>David Sanchez Pedroche*, Daniel Amigo, Jesus Garcia, Jose M. Molina and Juan Pedro Llerena</i>	10:20 - Approximate Bayesian State Estimation for Active Fault Diagnosis of Large-Scale Systems (5605) <i>Ondrej Straka*, Ivo Puncochar and Jiří Ajgl</i>	10:20 - MobileFuse: Multimodal Image Fusion at the Edge (6998) <i>Hughes Perreault*, Benoit Debaque, Rares David, Marc-Antoine Drouin, Nicolas Duclos-Hindie and Simon Roy</i>	10:20 - Non-myopic Sensor Path Planning for Emitter Localization with a UAV (9471) <i>Folker Hoffmann, Hans Schily*, Markus Krestel, Alexander Charlish, Matthew Ritchie and Hugh Griffiths</i>
10:45 - 11:00 Break (Grand Hall)					
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 6					
11:00 - 12:15	6A: Graph Tracking II <i>Samuel Shapero</i>	6B: (SS7) Information Fusion for Situation Understanding and Sense-making II / Quantum Computing <i>Lauro Snidaro</i>	6C: (SS9) Advanced Nonlinear Filtering II <i>Uwe Hanebeck</i>	6D: Computer Vision II <i>Ondrej Straka</i>	6E: Sensor Management II <i>Darin Dunham</i>
	11:00 - Measuring Multi-Source Redundancy in Factor Graphs (255) <i>Jesse Milzman*, Andre Harrison, Carlos Nieto and John Rogers</i>	11:00 - Comparison of Classification Techniques for Extremism Detection in French Social Media (8372) <i>Valentina Dragos* and Yolène Constable</i>	11:00 - Stein Variational Gradient Descent for Non-Bayesian Particle Flow (6857) <i>Kyle Craft* and Kyle DeMars</i>	11:00 - Multistream Convolutional Neural Network Fusion for Pixel-wise Classification of Peatland (2262) <i>Fahimeh Farahnakian*, L. Zelioli, T. Pitkänen, J. Pohjankukka, M. Middleton, S. Tuominen, P. Nevalainen & J. Heikkonen</i>	11:00 - Reinforcement Learning based Guidance Policy Optimization for a Swarm of Cooperative Sensor Platforms Tracking a Single Target (1890) <i>Samuel Layer-Reiss*, Alexander Zwienig, Carolyn Kalender and David Braun</i>
	11:25 - Decentralized Decision Making over Random Graphs (1289) <i>Samuel Fedeler, Marcus Holzinger and William Whitacre</i>	11:25 - Hybrid Quantum-Classical Neural Network for Incident Detection (4346) <i>Jean Michel Tine*, Z. Khan, S. M. Khan, R. Majumdar, A. T. Comert, D. Rice, G. Comert, M. Chowdhury, J. Mwakalonge & D. Michalaka</i>	11:25 - When Does the Marginalized Particle Filter Degenerate? (9317) <i>Jakob Åslund*, Fredrik Gustafsson and Gustaf Hendeby</i>	11:25 - Bounding Box Dynamics in Visual Tracking: Modeling and Noise Covariance Estimation (4621) <i>Jan Krejčí*, Oliver Kost, Ondrej Straka and Jindřich Dunik</i>	11:25 - A Method of Efficiently Evaluating Radar Performance Models Using Upper Bounds (3116) <i>Christoph Vollweiler*</i>
	11:50 - Distributed Swarm Navigation with Factored Filters (3694) <i>Samuel Shapero* and Daniel Levy</i>	11:50 - Game-Theoretic Strategies for Quantum-Conventional Network Infrastructures (5379) <i>Nageswara Rao*, Yu Tak Ma and Fei He</i>	11:50 - Inference for Variance-Gamma Driven Stochastic Systems (465) <i>Joseph Johnson*, Yaman Kindap and Simon Godsill</i>	11:50 - Bounding Box Detection in Visual Tracking: Measurement Model Parameter Estimation (688) <i>Jan Krejčí*, Oliver Kost and Ondrej Straka</i>	11:50 - Joint bias and target state estimation based on Doppler sensors (3141) <i>Xinyao Xian, Giorgio Battistelli, Luigi Chisci, Wanchun Li, Ping Wei, Lin Gao and Matteo Tesori*</i>

Wednesday, June 28, 2023

12:15 - 13:15 Lunch (Cypress/Dogwood)					
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 7					
13:15 - 14:30	7A: (SS1) Acoustic Data Fusion <i>Marc Oispuu</i>	7B: (SS8) Sensor Models & Calibration Techniques I <i>Jannik Springer</i>	7C: (SS9) Advanced Nonlinear Filtering III <i>Ryne Beeson</i>	7D: Computer Vision III <i>Lyudmila Mihaylova</i>	7E: Sensor Management III <i>Erik Blasch</i>
	13:15 - Navigation in Shallow Water Using Passive Acoustic Ranging (6069) <i>Junsu Jang* and Florian Meyer</i>	13:15 - Automatic Estimation of Ship-Mounted Cameras' Orientation by Hand-Eye Calibration (2319) <i>Daniel Bjerkehaugen*, Edmund Brekke, Esten Ingar Grøtli and Johannes Tjønnås</i>	13:15 - Approximate Fusion of Probability Density Functions Using Gaussian Copulas (876) <i>Jiří Ajgl* and Ondrej Straka</i>	13:15 - Holistic Self-Distillation with the Squeeze and Excitation Network for Fine-grained Plant Pathology Classification (5430) <i>Jingxuan Su*, Sean Anderson and Lyudmila Mihaylova</i>	13:15 - Optimal Sampling Methodologies for High-rate Structural Twinning (2642) <i>Alexander B. Vereen, Emmanuel Ogunniyi*, Austin Downey, Erik Blasch, Jason D. Bakos and Jacob Dodson</i>
	13:40 - Simultaneous Sensor and Sound Source Localization in Urban Environments (7631) <i>Luisa Still*, Marc Oispuu and Wolfgang Koch</i>	13:40 - Motion Tracking with Coupled Magnetometers and Dynamic IMU Measurement Fusion in Nonuniform Magnetic Fields (6677) <i>Jeronimo Cox*, Wei Zhang and Tomonari Furukawa</i>	13:40 - Deterministic Sampling of Arbitrary Densities Using Equal Sphere Packing of Volume under the Density (PoVuD) (4025) <i>Daniel Frisch* and Uwe D. Hanebeck</i>	13:40 - Learning Empirical Bregman Divergence for Uncertain Distance Representation (5880) <i>Zhiyuan Li*, Ziru Liu, Anna Zou and Anca Ralescu</i>	13:40 - Reinforcement Learning-based Autonomous Sensor Control via Simultaneous Learning of Policies and State-Action Spaces (3102) <i>Robert Ravier*, Denis Garagic, Travis Galoppo, Jacob Peskoe, Bradley Rhodes and Peter Zulch</i>
	14:05 - Computational Algorithms for Acoustic Signals Direction of Arrival and Sound Speed Estimation (8092) <i>Chris Norton*, Ryan Harvey, James Miller, Peter Willett, Lingyi Zhang and Krishna Pattipati</i>	14:05 - Modeling Inter-Vehicle Occlusion Scenarios in Multi-Camera Traffic Surveillance Systems (9938) <i>Leah Strand*, Jens Honer and Alois Knoll</i>	14:05 - Progressive Bayesian Particle Flows based on Optimal Transport Map Sequences (9515) <i>Uwe Hanebeck*</i>		14:05 - Power Allocation for Multi-Target Tracking in Netted Radar System under Suppression Jamming (7432) <i>Haicheng Xu*, Ye Yuan, Jun Sun and Wei Yi</i>
13:15 - 16:45 7F: Evaluation of Techniques for Uncertainty Representation (ETURG) F2F Working Group (Cannonborough)					
14:30 - 14:45 Break (Grand Hall)					
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 8					
14:45 - 16:00	8A: (SS8) Sensor Models and Calibration Techniques II/Navigation I <i>Marc Oispuu</i>			8B: Computer Vision IV <i>Lyudmila Mihaylova</i>	8C: Sensor Management IV <i>Nageswara Rao</i>
	14:45 - Learning IMM Filter Parameters from Measurements using Gradient Descent (4816) <i>André Brandenburger*, Folker Hoffmann and Alexander Charlish</i>			14:45 - Out-of-distribution Object Detection through Bayesian Uncertainty Estimation (1072) <i>Tianhao Zhang*, Shenglin Wang, Nidhal Bouaynaya, Radu Calinescu and Lyudmila Mihaylova</i>	14:45 - Statistical Detection of Coordination in a Cognitive Radar Network through Inverse Multi-Objective Optimization (4601) <i>Luke Snow* and Vikram Krishnamurthy</i>
	15:10 - Towards Terrain-Based Navigation Using Side-scan Sonar (5472) <i>Ellen Davenport, Junsu Jang and Florian Meyer*</i>			15:10 - Improved Multi-Scale Grid Rendering of Point Clouds for Radar Object Detection Networks (4604) <i>Daniel Köhler*, Maurice Quach, Michael Ulrich, Frank Mein, Bastian Bischoff and Holger Blume</i>	15:10 - Study of Overfitting by Machine Learning Methods Using Generalization Equations (4657) <i>Nageswara Rao*</i>
	15:35 - Bayesian Sensor Fusion for Joint Vehicle Localization and Road Mapping Using Onboard Sensors (6779) <i>Karl Berntorp*, Marcus Greiff, Stefano Di Cairano and Pedro Miraldo</i>			15:35 - A Variational Method with Kernel Estimation and Low Rank Prior for Pansharpening (9224) <i>Pengbo Mi*, Yi Yang, Meng Zhang, Sixian Zhang, Erqi Zhang and Wenbiao Li</i>	15:35 - Geometry Aware Distributed Kalman Filtering for Affine Formation Control under Observation Losses (6190) <i>Zhonggang Li* and Raj Rajan</i>
17:30 - 19:30 Welcome Reception [Guest: Ticketed Event] (Riviera Theatre)					

Thursday, June 29, 2023					
06:00 - 07:00	5k Run on Cooper River Bridge [Ticketed Event] (Starts at Cigar Factory - Transportation Provided)				
08:00 - 09:15	9: Plenary - Kellyn Rein, HUMINT – Context, Meaning and the Mythical "Meat Sensor" (Ballroom)				
09:15 - 09:30	Break (Grand Hall)				
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 10					
09:30 - 10:45	10A: ML Tracking <i>Federico Cerutti</i>	10B: (SS5) Evaluation of Technologies for Uncertainty Reasoning I <i>Paulo Costa</i>	10C: Nonlinear Filtering I <i>Mahendra Mallick</i>	10D: (SS4) Directional Estimation I <i>Florian Pfaff</i>	10E: Detection <i>Annie-Claude Perez</i>
	09:30 - Ghost Track Detection in Multitarget Tracking using LSTM Network (4093) <i>Aranee Balachandran, Tharmarasa Ratnasingham*, Aalok Acharya and Sunil Chomal</i>	09:30 - Evaluation of Counter Unmanned Aerial Systems through the levels (4780) <i>Benjamin Pannetier* and Anne-Laure Joussetme</i>	09:30 - Deep Normalizing Flows for State Estimation (1675) <i>Harrison Delecki, Liam Kruse, Marc Schlichting* and Mykel Kochenderfer</i>	09:30 - Periodic Fisher-Scoring Algorithm with Applications for DOA Estimation in Seismic Arrays (2437) <i>Malaak Khatib, Yochai Ben-Horin, Yael Radzyner, Jonathan D. Rosenblatt and Tirza Routtenberg*</i>	09:30 - Few-shot Domain-Adaptative Visually Fused Event Detection from Text (6962) <i>Van Nguyen, Farhad Moghimifar*, Fatemeh Shiri, Yuan-Fang Li and Reza Haffari</i>
	09:55 - Model-based Deep Learning for Maneuvering Target Tracking (7920) <i>Nicola Forti, Leonardo M. Millefiori, Paolo Braca and Peter Willett*</i>	09:55 - Uncertain about ChatGPT: enabling the uncertainty evaluation of large language models (4799) <i>Anne-Laure Joussetme*, Pieter de Villiers, Allan de Freitas, Erik Blasch, Valentina Dragos, Gregor Pavlin, Paulo Costa, Kathryn Laskey and Claire Laudy</i>	09:55 - Maximum Correntropy Two-Filter Smoothing (4902) <i>Yanbo Yang*, Zhunga Liu, Yuemei Qin, Quan Pan and Qianqian Zhou</i>	09:55 - Elephant DOA Estimation using a Geophone Network (5942) <i>Gustav Zetterqvist*, Erik Wahledow, Philip Sjövik, Fredrik Gustafsson and Gustaf Hendeby</i>	09:55 - Multi-frame Detection for Dim Target under Heterogeneous Clutter in Airborne Radars (7261) <i>Xingyue Long*, Wujun Li, Yong Zhao, Haiyi Mao, Wen Qin and Wei Yi</i>
	10:20 - Accurate Passive Radar via an Uncertainty-Aware Fusion of Wi-Fi Sensing Data (8845) <i>Marco Cominelli*, Francesco Gringoli, Lance Kaplan, Mani Srivastava and Federico Cerutti</i>	10:20 - Software-Friendly Subjective Bayesian Networks: Reasoning within a Software-Centric Mission Impact Assessment Framework (8162) <i>Shou Matsumoto*, J. F. Ferrari, H. J. Yoon, A. h R. Thukkaraju, D. Lee, M. K. Ahn, J. Cho & P. Costa</i>	10:20 - Multiscan Shape Estimation for Extended Object Tracking (1826) <i>Michael Ernesto Lopez*, Edmund Førland Brekke, Rudolf Mester and Annette Stahl</i>	10:20 - Collaborative Bearing Estimation Using Set Membership Methods (8570) <i>Mohammad Zamani, Jochen Trumpf* and Chris Manzie</i>	10:20 - Observability of Bias of Measurements in Bearings-Only Target Motion Analysis (5882) <i>Annie-Claude Perez and Claude Jauffret*</i>
10:45 - 11:00	Break (Grand Hall)				
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 11					
11:00 - 12:15	11A: ML Fusion <i>Terence Van Zyl</i>	11B: (SS5) Evaluation of Technologies for Uncertainty Reasoning II <i>Erik Blasch</i>	11C: Nonlinear Filtering II <i>Gustaf Hendeby</i>	11D: (SS4) Directional Estimation II / Radar <i>Florian Pfaff, W. Dale Blair</i>	11E: Track Fusion I <i>Pramod Varshney</i>
	11:00 - Late Meta-learning Fusion Using Representation Learning for Time Series Forecasting (179) <i>Terence Van Zyl*</i>	11:00 - Qualitative Models of Data Generation Processes: Facilitating Data-Intensive AI Solutions (5234) <i>Gregor Pavlin*, Kathryn Laskey, Franck Mignet, Erik Blasch, Filip Slijkhuis, Valentina Dragos and Pieter J. de Villiers</i>	11:00 - On the Approximation of the Quotient of Two Gaussian Densities for Multiple-model Smoothing (7274) <i>Yi Liu, Xi Li, Le Yang, Lyudmila Mihaylova* and Yanbo Xue</i>	11:00 - On the Spherical Laplace Distribution (6239) <i>Kisung You* and Dennis Shung</i>	11:00 - Conservative Data Reduction for Covariance Matrices Using Elementwise Event Triggers (3278) <i>Christopher Funk* and Benjamin Noack</i>
	11:25 - Identifying Aircraft Motions and Patterns from Magnetometry Data Using a Knowledge-Based Multi-Fusion Approach (690) <i>Julian Vexler* and Stefan Kramer</i>	11:25 - Identifying Key Features in Aggregated Real-Life AIS-Messages for Classification of Maritime Vessels by Random Forests (5876) <i>Max Krueger* and Ludwig Lausser</i>	11:25 - Iterated Filters for Nonlinear Transition Models (9740) <i>Anton Kullberg*, Isaac Skog and Gustaf Hendeby</i>	11:25 - Wake/PDA: Target Tracking with Existence Modeling in the Presence of Wakes (1906) <i>Audun G. Hem*, Hanne-Grete Alveheim and Edmund F. Brekke</i>	11:25 - Association of Labellized Tracks with Low Reliability Covariance Information: a Track Graph Partitioning Approach (8737) <i>Lionel Gayraud* and Frédéric Dambreville</i>
	11:50 - Generic Multimodal Gradient-based Meta Learner Framework (8442) <i>Liriam Enamoto*, Li Weigang, Geraldo P. Rocha Filho and Paulo C. Costa</i>		11:50 - Ensemble Kalman Filter with Bayesian Recursive Update (7823) <i>Kristen Michaelson*, Andrey Popov and Renato Zanetti</i>	11:50 - GLRT Particle Filter for Non-Line of Sight Moving Target Tracking via Phased Array Radar (3388) <i>Ba-Huy Pham*, Olivier Rabaste, Jonathan Bosse, Israel Hinoestroza and Thierry Chonavel</i>	11:50 - Sequential Processing of Observations in Human Decision-Making Systems (528) <i>Nandan Sriranga*, Baocheng Geng and Pramod Varshney</i>

Thursday, June 29, 2023

12:15 - 13:15 Lunch (Cypress/Dogwood)					
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 12					
13:15 - 14:30	12A: Target Tracking I <i>Yaakov Bar-Shalom</i>	12B: (SS5) Evaluation of Technologies for Uncertainty Reasoning III <i>Paulo Costa</i>	12C: Data Association <i>Sean O'Rourke</i>	12D: ML Sensor Management <i>Genshe Chen</i>	12E: Navigation II <i>Edmund Brekke</i>
	13:15 - Interframe Association of YOLO Bounding Boxes in the Presence of Camera Panning and Zooming (7799) <i>Zijiao Tian*, Yaakov Bar-Shalom, Rong Yang, Hong'An Jack Huang and Gee Wah Ng</i>	13:15 - URREF Risk Analysis Towards Data Fusion Certification (1170) <i>Erik Blasch*, Anne-Laure Joussetme, Pieter de Villiers, Kathryn Laskey, Paulo C. Costa, Gregor Pavlin and Claire Laudy</i>	13:15 - The Linear Multitarget IPDA and Its Application on Only a Subset of the Tracks. (8307) <i>Lars-Christian Tokle* and Edmund Brekke</i>	13:15 - On-Sensor Online Learning and Classification Under 8 KB Memory (1818) <i>Mahesh Chowdhary* and Swapnil Sayan Saha</i>	13:15 - Distributed Multi-agent Magnetic Field Norm SLAM with Gaussian Processes (2340) <i>F.M. Viset*, Rudy Helmons and Manon Kok</i>
	13:40 - Unbiased Electro-optical/Infrared Camera Angular Measurements and their Cross-Correlated Errors (9011) <i>Jessica Koon Yan Goh*, Yaakov Bar-Shalom and Rong Yang</i>	13:40 - Cross-Entropy and Relative Entropy of Basic Belief Assignments (8828) <i>Jean Dezert and Frédéric Dambreville*</i>	13:40 - Measurement-to-Measurement Association for MDA with A Practical Coarse Gating Strategy (8313) <i>Zheng Wei, Zhansheng Duan and Mahendra Mallick*</i>	13:40 - Enhancing Disaster Management of Guyed Towers through Machine Learning-Based Data Fusion (4008) <i>Juliane Regina de Oliveira, German Jimenez, Claudio Ferreira Dias, Eduardo R. De Lima*, Janito Vaqueiro, Larissa M. de Almeida and Lucas Wanner</i>	13:40 - Design of Efficient Point-Mass Filter with Application in Terrain Aided Navigation (3491) <i>Jakub Matousek*, Jindrich Dunik and Marek Brandner</i>
	14:05 - Adaptive Mixture Model Reduction based on the Composite Transportation Dissimilarity (9879) <i>Alessandro D'Ortenzio, Costanzo Manes, Vittorio De Iulius* and Umut Orguner</i>		14:05 - Closing the Ivory Validation Gates: A Historical Analysis of Achkasov's Data Association Filters (9043) <i>Sean O'Rourke*</i>	14:05 - Scheduling Condition-based Maintenance: An Explainable Deep Reinforcement Learning Approach via Reward Decomposition (1767) <i>Huong Dang*, Kc Chang, Genshe Chen and Hua-Mei Chen</i>	14:05 - Sweeping UV-C Disinfection: a Mathematical Approach (2609) <i>Sergio G. Pflieger, Juha Röning* and Patricia Della Mía Plentz</i>
13:15 - 16:45	12F: Open-Source Tracking and Evaluation Working Group (Cannonborough)				
14:30 - 14:45	Break (Grand Hall)				
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 13					
14:45 - 16:00	13A: Situational Awareness <i>Brita Helene Hafskjold Gade</i>		13B: Data Mining <i>Renato Zanetti</i>		13C: Navigation III <i>Manon Kok</i>
	14:45 - Intention Estimation with Recurrent Neural Networks for Mixed Reality Environments (5131) <i>Michael Fennel*, Serge Garbay, Antonio Zea and Uwe D. Hanebeck</i>		14:45 - Co-embedding Multi-type Data for Information Fusion and Visual Analytics (7260) <i>Dongjin Choi*, Barry Drake and Haesun Park</i>		14:45 - Maritime Radar Odometry Inspired by Visual Odometry (2635) <i>Henrik Flemmen*, Rudolf Mester, Annette Stahl, Torleiv Bryne and Edmund F. Brekke</i>
	15:10 - Probability Distributions in Coastal Regions for Association of Naval Vessels (5378) <i>Alexander Meyer Sjöberg* and Brita Helene Hafskjold Gade</i>		15:10 - Ensemble Gaussian Mixture Filtering with Particle-localized Covariances (1504) <i>Andrey A. Popov* and Renato Zanetti</i>		15:10 - Large-scale Magnetic Field Maps Using Structured Kernel Interpolation for Gaussian Process Regression (3741) <i>Clara Menzen*, Marnix Fetter and Manon Kok</i>
	15:35 - Unsupervised Anomaly Detection Under a Multiple Modeling Strategy via Model Set Optimization through Transfer Learning (5732) <i>Masanao Natsumeda*, Takehiko Mizoguchi, Wei Cheng, Yuncang Chen and Haifeng Chen</i>		15:35 - Variations of Joint Integrated Data Association with Radar and Target-Provided Measurements (JAIF3) <i>Audun Gullikstad Hem* and Edmund F. Brekke</i>		15:35 - Mapping the Magnetic Field Using a Magnetometer Array with Noisy Input Gaussian Process Regression (5804) <i>Thomas Edridge* and Manon Kok</i>
18:00 - 22:00	Banquet Dinner, Finding Gold, Awards, & Ballroom Dancing [Guest: Ticketed Event] (Ballroom)				

Friday, June 30, 2023

08:00 - 09:15 14: Plenary - Victoria Rubin, Artificial and Human Intelligence Solutions to Combat Mis- and Disinformation (Ballroom)					
09:15 - 09:30 Break (Grand Hall)					
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 15					
09:30 - 10:45	15A: Target Tracking II <i>David Crouse</i>	15B: (SS6) Extended Object & Group Tracking I <i>Tim Baur</i>	15C: RFS Methods I <i>Daniel Clark</i>	15D: Belief Functions I <i>Lance Kaplan</i>	15E: Operations Research <i>Patrick Huber</i>
	09:30 - Flexible Multi-Target Tracking with Track Management Using Dirichlet and Gaussian Processes (712) <i>Fred Goodyer*, Bashar Ahmad and Simon Godsill</i>	09:30 - Extended target PMBM tracker with a Gaussian Process target model on LiDAR data (4317) <i>Martin Baerveldt*, Michael Ernesto López and Edmund Førland Brekke</i>	09:30 - A multi-object Kalman filter for Gaussian random fields with point process measurements (8585) <i>Daniel Clark*</i>	09:30 - Bounded Subjective Opinions (1200) <i>Michael McDonald*, Lance Kaplan and Van Nguyen</i>	09:30 - A Solution to the Electrical Urban Transit Routing Problem with Heterogeneous Characteristics (3549) <i>Patrick Huber*, Ulrich Göhner and Rabea Lichtenberg</i>
	09:55 - Adaptive Kalman Filter Tracking for Instantaneous Aircraft Flutter Monitoring (8356) <i>Robin Volkmar*, Kolja Thormann, Keith Soal, Yves Govers, Marc Böswald and Marcus Baum</i>	09:55 - An Efficient Implementation of the Extended Object Trajectory PMB Filter Using Blocked Gibbs Sampling (5593) <i>Yuxuan Xia*, Angel Garcia-Fernandez and Lennart Svensson</i>	09:55 - On Gibbs Sampling Architecture for Labeled Random Finite Sets Multi-Object Tracking (9840) <i>Anthony Trezza*, Donald Bucci and Pramod Varshney</i>	09:55 - Online Performance Assessment of Multi-Sensor Kalman Filters Based on Subjective Logic (8020) <i>Thomas Griebel*, Jonas Heinzler, Michael Buchholz and Klaus Dietmayer</i>	09:55 - Approximate First-Passage Time Distributions for Gaussian Motion and Transportation Models (3693) <i>Marcel Reith-Braun*, Jakob Thumm, Florian Pfaff and Uwe D. Hanebeck</i>
	10:20 - Mismatched Filter Design Applied to 1D and 2D Sinusoidal Models (5288) <i>David Crouse*</i>	10:20 - Multiple Gaussian Processes based Extended Target Tracking with Variational Inference (8445) <i>Dongsheng Yang*, Yunfei Guo and Boyan Qiu</i>	10:20 - Deterministic Multi-sensor Measurement-adaptive Birth using Labeled Random Finite Sets (5860) <i>Jennifer Bondarchuk*, Anthony Trezza and Donald Bucci</i>		10:20 - Joint Estimation of Vessel Parameter-Motion and Sea State (8968) <i>Hoa Van Nguyen*, Hao Luong, Daniel Sgarioto, Alex Skvortsov, Sanjeev Arulampalam, Jonathan Duffy and Damith C. Ranasinghe</i>
10:45 - 11:00 Break (Grand Hall)					
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 16					
11:00 - 12:15	16A: Target Tracking III <i>W. Dale Blair</i>	16B: (SS6) Extended Object and Group Tracking II <i>Kolja Thormann</i>	16C: RFS Methods II <i>Roy Streit</i>	16D: Belief Functions II <i>Anne-Laure Jousselme</i>	16E: (SS2) Context-based Information Fusion I <i>Jesus Garcia</i>
	11:00 - Automatic Identification of Coordinated Targets (535) <i>Hosam Alqaderi*, Felix Govaers and Wolfgang Koch</i>	11:00 - Multitarget-Multidetector Tracking Using the Kernel SME Filter (4856) <i>Eugen Ernst*, Florian Pfaff, Marcus Baum and Uwe Hanebeck</i>	11:00 - Stochastic Flows: A Primer on Early Multi-object Filtering Work with Point Processes (2977) <i>Daniel Clark*, Alexey Narykov and Roy Streit</i>	11:00 - Sequential Source Selection Based On Evidential Value of Information (921) <i>Pawel Kowalski*, Anne-Laure Jousselme and Thanuka Wickramaratne</i>	11:00 - Dual Occupancy and Knowledge Maps Management for Optimal Traversability Risk Analysis (258) <i>Mohamed Ben Rabah*, Elie Randriamiarintsoa, Jeremy Morceaux, Roland Chapuis and Romuald Aufriere</i>
	11:25 - Stone Soup: No Longer Just an Appetiser (698) <i>Steven Hiscocks, Jordi Barr*, Nicola Perree, James Wright, Henry Pritchett, Oliver Rosoman, Michael Harris, Roisin Gorman, Sam Pike, Peter Carniglia, Lyudmil Vladimirov and Benedict Oakes</i>	11:25 - Improved Extended Object Tracking with Efficient Particle-based Orientation Estimation (8388) <i>Simon Steuernagel*, Kolja Thormann and Marcus Baum</i>	11:25 - The Product Multi-Sensor Labeled Multi-Bernoulli Filter (6217) <i>Martin Herrmann*, Tim Luchterhand, Charlotte Hermann and Michael Buchholz</i>	11:25 - Weighted Fusion of Multiple Classifiers for Human Activity Recognition (2060) <i>Kezhu Zuo, Xinde Li*, Jean Dezert and Yilin Dong</i>	11:25 - Classification of Warship Formations Using a Kohonen Network (380) <i>Pablo Rangel*, José Carvalho and José Ricardo Oliveira</i>
	11:50 - A Gaussian Integral Filter with Multivariate Laplace Process Noise (9275) <i>Enrico Zucchelli* and Brandon Jones</i>	11:50 - Evaluation Scores for Elliptic Extended Object Tracking Considering Diverse Object Sizes (9412) <i>Simon Steuernagel, Kolja Thormann* and Marcus Baum</i>	11:50 - The Fast Product Multi-Sensor Labeled Multi-Bernoulli Filter (2040) <i>Charlotte Hermann, Martin Herrmann*, Thomas Griebel, Michael Buchholz and Klaus Dietmayer</i>	11:50 - Exercise and Sedentary Activity Recognition Using Late Fusion: Building Adaptable Uncertain Models (5995) <i>Ezequiel Juarez Garcia*, Victoria R. Rodrigues, Mehrdad Fazli, Laura E. Barnes and Nicholas J. Napoli</i>	11:50 - Avoiding Quantification Effect in the Vertical Trajectory Reconstruction Filtering System (5642) <i>Daniel Amigo*, David Sanchez Pedroche, Jesus Garcia, Jose M. Molina, Emmanuel Voet and Benoit Van Bogaert</i>

Friday, June 30, 2023

12:15 - 13:15 Lunch (Cypress/Dogwood)					
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 17					
13:15 - 14:30	17A: Tracking Performance Evaluation <i>Darin Dunham</i>	17B: (SS6) Extended Object and Group Tracking III <i>Jindrich Dunik</i>	17C: RFS Methods III <i>Keith LeGrand</i>	17D: Sensor Fusion <i>Rong Yang</i>	17E: (SS2) Context-based Information Fusion II / Track Fusion II <i>Fredrik Gustafsson, Jesus Garcia</i>
	13:15 - Measurement and Track Fusion at the System Level (314) <i>Darin Dunham*, Terry Ogle and Paul Miceli</i>	13:15 - Extended Target Tracking With a Lidar Sensor Using Random Matrices and a Gaussian Processes Regression Model (9665) <i>Patrick Hoher*, Johannes Reuter, Daniel Dold, Dennis Griesser, Felix Govaers and Wolfgang Koch</i>	13:15 - Labeled Probability Hypothesis Density Filtering for Track-Before-Detect Strategy (4609) <i>Haiyi Mao*, Boxiang Zhang, Jiaye Yang, Xingyue Long, Cong Peng and Wei Yi</i>	13:15 - Multimodal Early Fusion of Automotive Sensors based on Autoencoder Network: An anchor-free approach for Vehicle 3D Detection (429) <i>Daniel Vriesman*, Alceu Britto Júnior, Alessandro Zimmer and Thomas Brandmeier</i>	13:15 - DEMDE: Decision Making Design based on Bayesian Network for Personalized Monitoring System (5435) <i>Cristovão Freitas Iglesias Junior, Pedro Nucci, Claudio Miceli* and Miodrag Bolic</i>
	13:40 - GOSPA-Driven Gaussian Bernoulli Sensor Management (2402) <i>George Jones*, Angel F. Garcia-Fernandez and Prudence W.H. Wong</i>	13:40 - A Novel Method for Maneuvering Extended Vehicle Tracking with Automotive Radar (9728) <i>Hongfei Xu*, Yaowen Li, Yu Liu, Zhizhuo Jiang and You He</i>	13:40 - Joint Emitter Detection and Tracking Based on the Bernoulli Filter (993) <i>Tao Liang, Lin Gao, Ping Wei, Giorgio Battistelli, Luigi Chisci and Matteo Tesori*</i>	13:40 - Enhance Public Safety Surveillance in Smart Cities by Fusing Optical and Thermal Cameras (6064) <i>Nihal Poredi*, Yu Chen, Xiaohua Li and Erik Blasch</i>	13:40 - Sampling-based Track-to-Track Association (4564) <i>Laura M. Wolf*, Simon Steuernagel, Kolja Thormann and Marcus Baum</i>
	14:05 - Advances in Multi-Target Tracking Performance Evaluation (5259) <i>Stefano Coraluppi*</i>	14:05 - Shape Tracking Using Fourier-Chebyshev Double Series for 3D Distance Measurements (3649) <i>Tim Baur*, Johannes Reuter, Antonio Kleber Zea Cobo and Uwe D. Hanebeck</i>	14:05 - Split Happens! Imprecise and Negative Information in Gaussian Mixture Random Finite Set Filtering (JAIF2) <i>Keith LeGrand* and Silvia Ferrari</i>	14:05 - Full State Information Transfer Across Adjacent Cameras in a Network Using Gauss Helmert Filters (JAIF1) <i>Rong Yang* and Yaakov Bar-Shalom</i>	14:05 - Track-To-Track Association For Fusion of Dimension-Reduced Estimates (9267) <i>Robin Forsling*, Zoran Sjanic, Fredrik Gustafsson and Gustaf Hendeby</i>
13:15 - 4:45	17F: Open-Source Tracking and Evaluation Working Group (Cannonborough)				
14:30 - 14:45 Break (Grand Hall)					
Room	(Jenkins/King Charles)	(Harleston)	(Ansonborough)	(Colleton)	(Drayton)
Session 18					
14:45 - 16:00	18A: Particle Filtering <i>Karl Bertorp</i>		18B: Multiple Hypothesis Tracking <i>Stefano Coraluppi</i>		
	14:45 - L:OMEM - A fast filter to track maneuvering extended objects (4111) <i>Matteo Tesori*, Giorgio Battistelli, Luigi Chisci and Alfonso Farina</i>		14:45 - Lossless Processing and the Limits of Trackability in MHT (4107) <i>Andrew Hunter*, Stefano Coraluppi and Brandon Bale</i>		
	15:10 - A Scalable Rao-Blackwellised Sequential MCMC Sampler for Joint Detection and Tracking in Clutter (8209) <i>Qing Li, Runze Gan and Simon Godsill*</i>		15:10 - Large-Scale Space Object Tracking in a Proliferated LEO Scenario (6966) <i>Benjamin L. Reifler*, Andrey A. Popov, Brandon A. Jones and Renato Zanetti</i>		
	15:35 - Constrained Gaussian-Process State-Space Models for Online Magnetic-Field Estimation (8516) <i>Karl Bertorp* and Marcel Menner</i>		15:35 - Multi-Target Tracking with GPU-Accelerated Data Association Engine (9121) <i>Samiran Kawtikwar* and Rakesh Nagi</i>		
16:00 - 17:00	19: ISIF General Forum (Ballroom) - Everyone Welcome!				
17:00 - 20:00	20: ISIF BOD Closed Executive Session (Jenkins/King Charles)				