



PROGRAMME

7th - 11th July 2025
Rio de Janeiro, Brazil





Welcome

Rio welcomes you! The 28th International Conference on Information Fusion, FUSION2025, comes to South America. Named São Sebastião do Rio de Janeiro, Rio was founded in 1565. It is the heart of Brazil and its cultural capital. It is the city of Carnival, of natural wonders, of football, of music and of beautiful beaches. The conference venue, the Othon hotel, is in front of the worldwide famous Copacabana beach. You will find a link to Blumar turismo at the website that will provide you with several tours. You will fall in love with Rio!

The FUSION2025 organizing committee has worked diligently to create a conference that is both enriching and enjoyable. This year's event features a distinguished group of plenary speakers representing academia, industry, and government. They will offer valuable perspectives, sharing their expertise across a broad spectrum of topics—including multimodal sensor fusion, deep learning, machine learning, human intelligence, disinformation, and more. The program also includes an introductory boot camp designed for students new to information fusion, a series of tutorials for those looking to deepen their understanding of specific areas, and a robust lineup of technical paper sessions. These sessions provide attendees with insights into the latest advancements in the field and the chance to engage directly with leading experts.

Beyond the technical program, we've organized a variety of social events to help attendees connect, experience the spirit of Rio. Be sure to join us for the icebreaker reception on Tuesday, July 8th, at the Kiosk in Copacabana. The opening will be at the breathtaking Sugar Loaf. The highlight of the conference will be Thursday night's banquet—a traditional Brazilian barbecue at the Botafogo bay. It will feature the recognition of our 2025 award winners, the announcement of FUSION 2026 and a night of dancing and celebration.

In closing, we would like to express our sincere gratitude to our sponsors, Leonardo and CNPq, for their generous support. We also extend our thanks to our sponsoring organizations, ISIF and IEEE-AESS, as well as to the organizing committee, whose dedication and hard work have made this year's conference possible. We hope you find the conference informative, engaging, and above all, enjoyable. On behalf of the Organizing Committee, we're delighted to welcome you and are thrilled to have you with us!

General Chairs

A handwritten signature in black ink, appearing to read "Miceli de Farias".
Claudio Miceli de Farias

A handwritten signature in black ink, appearing to read "Paulo Costa".
Paulo Costa

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INFORMATION FUSION

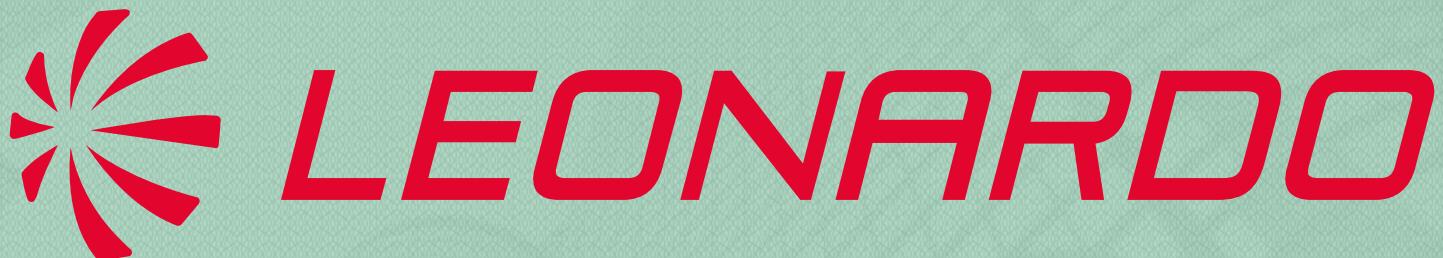


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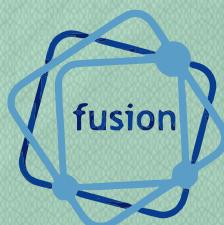


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Preliminary Trivia

Submissions:

- 215 total, 157 accepted, 73% acceptance rate
- For the first time in Fusion, Brazilians had the largest number of submissions (18%)
- Runner ups: China, US, Germany, UK (in that order)
- South America had 1/3 of all submissions
- The mode of authors was 3 per paper
- Submission pattern was quite similar to what happened in the last 5 conferences

Conference:

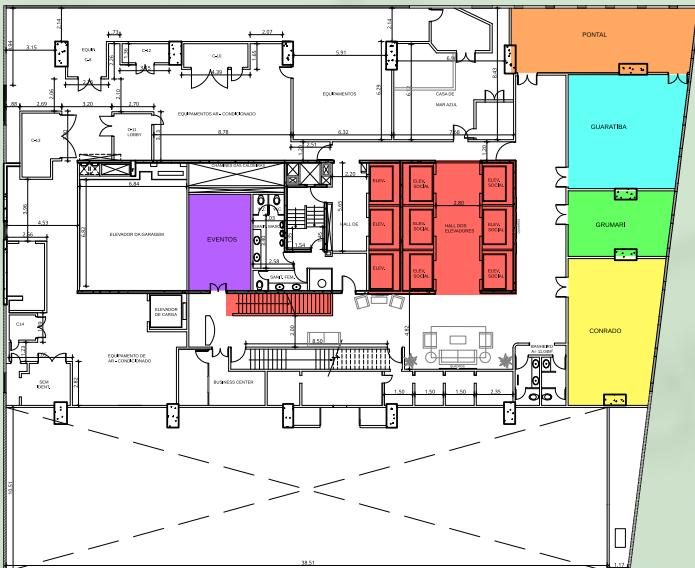
- 160 paper presentations divided in 8 parallel sessions, 3 plenary speakers
- Bootcamp (Monday)
- Tutorials (Tuesday): 3 full-day, 14 half-day
- ISIF Working Groups meetings: 2 (ETURW and Stone Soap)
- Extra activities: 5K run, Teen Research Workshop
- Community support: 10 ISIF Scholarships

1st Floor



- Elevators and Stairs
- Room Copacabana A
- Room Copacabana B
- Room Mar Azul

2nd Floor



- Elevators and Stairs
- Room São Conrado
- Room Guaratiba
- Room Pontal
- Room Grumari
- Room Ipanema

Monday (7/7)		Thursday (10/7)	
10:00 - 19:00	Bootcamp	7:00	5k Run
20:00	Young Researchers Welcome Event	9:30	Registration
Tuesday (8/7)		9:45 - 10:00	Welcoming
10:00 - 19:00	Tutorials	10:00 - 11:00	Keynote 2 - prof. João Paulo Papa
19:00 - 20:00	Ice breaker	11:00 - 13:00	Paper sessions *
Wednesday (9/7)		13:00 - 14h30	Lunch
07:45	Registration	14h30 - 16h30	Paper sessions *
8:00	FUSION 2025 Official Opening	16h30 - 17:00	Coffee Break
8:30	Sugar Loaf trip	17:00 - 19:00	Paper sessions *
12:00 - 13:00	Keynote 1 - prof. Marcelo Rovai	20:00	Gala Dinner
13:00 - 14h30	Lunch	Friday (11/7)	
14h30 - 16h30	Paper sessions *	9:30	Registration
16h30 - 17:00	Coffee Break	9:45 - 10:00	Welcoming
17:00 - 19:00	Paper sessions *	10:00 - 11:00	Keynote 3 Prof. Alessandro Jacoud
20:00 - 21:00	Opening event	11:00 - 13:00	Paper sessions *
*See the detailed paper session bellow.		13:00 - 14h30	Lunch
		15:00	Board Meeting

Paper sessions

Wednesday (09/07) - 14:30 - 16:30

Localization I (Room Copacabana A): Pramod Varshney

14:30 - 14:50	A Sigma Point-based Low Complexity Algorithm for Multipath-based SLAM in MIMO Systems
(103)	Anna Masiero, Alexander Venus, Erik Leitinger
14:50 - 15:10	Fisher Information Matrix for a Parameter Observable up to an Orthogonal Symmetry
(12)	Annie-Claude Perez, Claude Jauffret
15:10 - 15:30	Linear Sensor Collaboration for Distributed Parameter Estimation in the Presence of Communication Failures
(191)	Nandan Sriranga, Arick Grootveld, Pramod Varshney
15:30 - 15:50	Optimizing Rescue Operations in Urban Forests: A Data Mining-Enhanced ACO Approach
(170)	Cláudio Alves, Almir Monteiro Júnior, Pedro Henrique González
15:50 - 16:10	Autonomous Robotic Radio Source Localization via a Novel Gaussian Mixture Filtering Approach
(52)	Sukkeun Kim, Sangwoo Moon, Ivan Petrunin, Hyo-Sang Shin, Shehryar Khattak
16:10 - 16:30	(118) UAV-Assisted Federated Learning with Autoencoders for IoT Image Classification
(118)	Andre Gonçalves, Bruno Olivieri, Markus Endler

SS1: Evaluation of Technologies for Uncertainty Reasoning (ETUR) (Room Copacabana B): Claire Laudy

14:30 - 14:50	Evaluation of LLM Reasoning under Uncertainty: An Atomic Comparison to Normative Approaches
(59)	Johan de Villiers, Allan De Freitas, Anne-Laure Jousselme, Lance Kaplan, Erik Blasch, Claire Laudy, Paulo Costa
14:50 - 15:10	Situation Awareness using Fuzzy Analytical Hierarchy Processing
(67)	Erik Blasch
15:10 - 15:30	The Effect of the Prior on Asymptotic Performance of Uncertain Naive Bayesian Networks
(97)	Lance Kaplan, James Hare, Parth Paritosh

SS1: Evaluation of Technologies for Uncertainty Reasoning (ETUR) (Room Copacabana B): Claire Laudy

15:30 - 15:50	ChatGPT as a Subject Matter Expert in the Parameterization of Bayesian Network Classifiers
(173)	Max Krueger

SS2: Applications of Stone Soup 1 (Room Mar Azul): James Wright and Timothy Glover

14:30 - 14:50	Stone Soup Multi-Target Tracking Feature Extraction For Autonomous Search And Track In Deep Reinforcement Learning Environment
(57)	Joe Gibbs, Jan-Hendrik Ewers, David Anderson, David Cormack
14:50 - 15:10	Multiagent Information Coverage Inspired Target Searching and Tracking in Stone Soup
(94)	Timothy Glover, James Knowles, Matthew Coombes, Henry Pritchett
15:10 - 15:30	Enhancing Group Tracking Performance Evaluation for Drone Swarms and Real-World Validation
(123)	Benjamin Pannetier, Anne-Laure Jousselme

15:30 - 15:50	Stone Soup Goes NUTS: Adding Proposals and The No-U-Turn Sampler to Stone Soup
(91)	Alberto Acuto, Lyudmil Vladimirov, Alessandro Varsi, Paul Horridge, Simon Maskell

Bayesian Methods 1 (Room Ipanema): Simon Godsill

14:30 - 14:50	Estimation of time varying 2D DOAs based on the variational Bayesian inference
(173)	Lin Gao
14:50 - 15:10	PiVoT: Poisson Measurements-based Variational Multi-object Detection and Tracking
(193)	Runze Gan, Qing Li, James Hopgood, Mike Davies, Simon Godsill
15:10 - 15:30	On the Variational Gaussian Filtering with Natural Gradient Descent
(44)	Xi Li, Yi Liu, Le Yang, Lyudmila Mihaylova, Ji Li
15:30 - 15:50	Bayesian Filtering with Unknown Process Noise Covariance
(65)	Eray Laz, Umut Orguner
15:50 - 16:10	Bridging Bayesian Inference and Neural Network Training: Equivalence of KBNN and Statistical Linearization
(76)	Hayk Amirkhanian, Markus Walker, Uwe Hanebeck, Marco Huber

Tracking Performance (Room São Conrado): Daniel Clark

14:30 - 14:50	A Mahalanobis Distance for Multi-Target Tracking
(102)	Idyano Leroy, Daniel Clark
14:50 - 15:10	A functional quadratic form distance for multi-target tracking performance assessment
(83)	Daniel Clark, Peter Richards
15:10 - 15:30	GLRT-based Detector for Multistatic Hybrid Active-Passive Sensing
(133)	Qiyu Zhou, Chengxin Guo, Ye Yuan, Wei Yi, Lingjiang Kong
15:30 - 15:50	Resilient Distributed Multiobject Fusion through GLRT-based Trust Model
(201)	Peter Karstensen, Roberto Galeazzi

Random Finite Sets (Room Guaratiba): Chaoqun Yang

14:30 - 14:50	Single Detection Per Scan Random Finite Set Filters for Passive Emitter Tracking
(21)	Ossian Eriksson
14:50 - 15:10	Joint tracking and classification of moving emitters with ESM-Radar fusion via random finite sets
(150)	Yulin Li, Suqi Li, Bailu Wang
15:10 - 15:30	Augmented RFS-based Filter and Its Application to Group Target Tracking Scenarios
(146)	Xinchao Zhu, Chaoqun yang, Chengwei Zhou, Zhiguo Shi
15:30 - 15:50	The Extended Target Trajectory PHD Filter Combined with Interacting Multiple Model
(120)	Yuhuan Xiong, Xi Cao, Yi Luo, Linao Zhang, Wujun Li

Path Planning (Room Pontal): Branko Ristic

14:30 - 14:50	Path Planning for Multi-platform Bearings-only Tracking in the Possibilistic Framework
(75)	Zhijin Chen, Branko Ristic, Du Yong Kim
14:50 - 15:10	Message Passing Scheduler for Hierarchical Autonomous Sensor Path Planning
(159)	Bisma Amjad, Sam Pike, Jordi Barr, Alex Kenyon, Nicola Perree, William Moran, Christopher Gilliam

Path Planning (Room Pontal): Branko Ristic

15:10 - 15:30	Game Theoretic Sensor Control for Bearings-Only Tracking of a Reactive Target
(81)	Luke McNabb, Branko Ristic, Ngoc Hung Nguyen, Sanjeev Arulampalam, Amanda Bessell

Wednesday (09/07) - 17:00 - 19:00

Estimation (Room Copacabana A): Simone Servadio

17:00 - 17:20	Reduced sampling-rate Rauch-Tung-Striebel smoother
(56)	Matti Raitoharju, Ángel García, Fernández, Simo Särkkä
17:20 - 17:40	MSE of Kalman Filter and Smoother for Fixed Non-Random State Trajectories
(177)	Batın Kurt, Umut Orguner
17:40 - 18:00	Advances in Particle Flow Filters with Taylor Expansion Series
(9)	Simone Servadio

18:00 - 18:20	Uncertainty-Driven Radar-Inertial Fusion for Instantaneous 3D Ego-Velocity Estimation
(160)	Prashant Rai, Elham Kowsari, Nataliya Strokina, Reza Ghabcheloo

Distributed Fusion (Room Copacabana B): Felix Govaers

17:00 - 17:20	Distributed Accumulated State Density Fusion with Unequal Window Lengths
(19)	Martin Herrmann, Dietrich Fraenken, Felix Govaers
17:20 - 17:40	Long-Term Evolution-based Time Synchronization in Distributed Sensor Networks
(30)	William Nordström, Magnus Malmström, Niclas Granström, Patrik Hedström, Ashwani Koul, Gustaf Hendeby
17:40 - 18:00	Geometric-Weighted Kalman Consensus Filter: An Adaptive Weighting Filter for Pose Estimation Based on Geometric Relationships
(34)	Hong Zhang, Yifeng Niu, Kunzhong Miao, Huangzhi Yu
18:00 - 18:20	PRIMEX – PRIME-based Graph Encoding and Extraction for Information Fusion
(131)	Kuochu Chang, Way Kuo, Yaakov Bar-Shalom, Chee-Yee Chong, Shozo Mori

SS2: Applications of Stone Soup 2 (Room Mar Azul): Timothy Glover and James Wright

17:00 - 17:20	An Astrodynamics Plugin for Stone Soup
(64)	Benedict Oakes, Anthony Thompson, Lyudmil Vladimirov, Ángel García-Fernández, Christopher Sherman, Jordi Barr
17:20 - 17:40	Dynamics-Informed Gaussian Process models in Stone Soup
(132)	Chloe Chung
17:40 - 18:00	Stone Soup: ADS-B-based Multi-Target Tracking with Stochastic Integration Filter
(214)	John Hiles, Jakub Matousek, Erik Blasch, Ruixin Niu, Ondrej Straka, Jindrich Dunik
18:00 - 18:20	Implementation of a Novel Formulation of Multiple Model Algorithms in Stone Soup
(216)	James Wright
Bayesian Methods 2 (Room Ipanema): Yaakov Bar - Shalom	
17:00 - 17:20	Bayesian Optimization for Robust Identification of Ornstein-Uhlenbeck Model
(73)	Jinwen Xu, Qin Lu, Yaakov Bar-Shalom
17:20 - 17:40	Bayesian Optimization for Parameter Selection in Fusion Systems
(78)	Kilian Wohlleben, Finn Siems, Jan Nausner, Michael Hubner
17:40 - 18:00	High Integrity Localization with Bayesian Optimization for Information Filter Tuning with Fault Detection
(164)	Mohammed Salhi, Joelle Al Hage
18:00 - 18:20	Incorporating the ChEES Criterion into Sequential Monte Carlo Samplers
(215)	Joshua Murphy, Andrew Millard, Daniel Frisch, Simon Maskell
18:20 - 18:40	Lie Group Bayesian Modeling of the von Mises Concentration Parameter
(119)	Esteban Morales Aguirre, Samy Labsir, Benoît Priot, Clément Gazzino, Gaël Pages

Tracking 1 (Room São Conrado): Peter Stütz

17:00 - 17:20	Multi-Frame Track-Before-Detect and Fusion Disambiguation Method Based on Inter-Frame Multi-PRF Radar
(209)	Miao Li, Qinyao Chang, Zhen Cui, Wujun Li, Wei Yi
17:20 - 17:40	Trajectory Information Exchange Multi-Bernoulli Filtering for Track-Before-Detect
(62)	Sion Lynch, Ángel García-Fernández, Lee Devlin
17:40 - 18:00	End-to-End Differentiable Multi-View Tracking: Architecture and Fine-Tuning Experiments
(195)	Colin Samplawski, Shiwei Fang, Benjamin Marlin
18:00 - 18:20	Calculation of multi-target conditional mean and covariance based on Gaussian random fields
(149)	Idyano Leroy, Daniel Clark
18:20 - 18:40	Airborne Optical Sensing: Supporting Robust Electro-Optical Multi-Target Tracking with Real-Time Raycasting and Cascading Data Association
(68)	Johannes Ostler, Peter Stütz

Visual Tracking (Room Guaratiba): Pieter DeVilliers

17:00 - 17:20	(5) FusionSORT: Fusion Methods for Online Multi-object Visual Tracking
(5)	Nathanael Lemessa Baisa
17:40 - 18:00	Feature Analysis in Camera and mm-Wave Radar Fusion for Soccer Player Action Recognition
(218)	Daniël Keyter, Johan de Villiers
18:00 - 18:20	A Vision-Assisted Multipath Suppression Method for Millimeter Wave Radar
(35)	Junran Fan, Yuxuan Ma, Yulin Wu, Lihang Huang, Jiahuan Liu, Shisheng Guo, Cui Guolong

Sensor Management (Room Pontal): Christopher Gilliam

17:00 - 17:20	Multi-Sensor Quality of Service Radar Resource Management with Task Dependencies
(33)	Christoph Vollweiter, Folker Hoffmann
17:20 - 17:40	Cooperative Sensor Scheduling for Long Term Planning
(186)	Marek Hilton, Beth Jelfs, Marco Martorella, William Moran, Christopher Gilliam

Sensor Management (Room Pontal): Christopher Gilliam

17:40 - 18:00	A Hybrid Multi-Centrality and Reinforcement Learning Approach for Sensor Allocation in Wireless Sensor Networks
(189)	Rafael Schneider, Cláudio Alves, Laura Assis, Claudio De Farias, Israel Mendonça dos Santos, Pedro Henrique González

18:00 - 18:20	A Reinforcement Learning Hybrid BRKGA Strategy Applied to Sensor Network Optimization
(169)	Cláudio Alves, Claudio De Farias, Israel Mendonça dos Santos, Pedro Henrique González

ETURWG Meeting (Room Grumari)

Thursday (10/07) - 11:00 - 13:00

Physics-based methods (Room Copacabana A): Gustaf Hendeby

11:00 - 11:20	Road Roughness Estimation via Fusion of Standard Onboard Automotive Sensors
(3)	Martin Agebjär, Gustav Zetterqvist, Fredrik Gustafsson, Johan Wahlström, Gustaf Hendeby

11:20 - 11:40	Bayesian Motion Estimation for Articulated Heavy Vehicles; A Damper-Based Model for Coupling Force
(29)	Axel Ceder, Lars Hammarstrand, Mats Jonasson, Murat Kumru, Leo Laine

11:40 - 12:00	Data-driven diffusion-based super-resolution for improvement of reduced-order model predictions in fluid dynamics
(199)	Ruan Sousa, Roberto Velho, Natanael Matos, Adriano Cortes, Gabriel Barros, Alvaro Coutinho

12:00 - 12:20	Causal Mechanism Estimation in Multi-Sensor Systems Across Multiple Domains
(90)	Jingyi Yu, Tim Puchynski, Marco Huber

Event Detection (Room Copacabana B): Marco Cominelli

11:00 - 11:20	Real-World Validation of Drone Anomaly Detection Using Evidential Networks
(95)	Pierre Pathe, Anne Laure Jousselme, Benjamin Pannetier, Olivier Bartheye

12:00 - 12:20	Preliminary Insights into Resource-Constrained Neuro-Symbolic Causal Complex Event Processing
(121)	Christian Bresciani, Luca Lavazza, Marco Cominelli, Liying Han, Gaofeng Dong, Francesco Gringoli, Lance Kaplan, Mani Srivastava, Trevor Bihl, Erik Blasch, Felix Knutson, Federico Cerutti

Event Detection (Room Copacabana B): Marco Cominelli

11:40 - 12:00	A Unified Framework for Innovation-based Stochastic and Deterministic Event Triggers
(122)	Eva Schmitt, Benjamin Noack

Aerial Systems (Room Mar Azul): Ali Raz

11:00 - 11:20	Predicting Sensor Fusion Performance for Situation Assessment in Countering Aerial Threats
(66)	Kuochu Chang, Ali Raz, Michael Hieb, Rajesh Ganesan

11:20 - 11:40	Sensitivity Analysis in Surveillance Performance Monitoring for Air Traffic Management
(71)	Clément Bénard, Nicolas Honoré, Christophe Labreuche

11:40 - 12:00	First High-Level Information Fusion Competition: Feedback and Lessons Learned
(162)	Claire Laudy, Victoria Alonso, Céline Reverdy, Johann Dreо

Maritime (Room Ipanema): Edmund Brekke

11:00 - 11:20	Near-Shore Mapping for Detection and Tracking of Vessels
(24)	Nicholas Dalhaug Annette Stahl, Rudolf Mester, Edmund Brekke

11:20 - 11:40	A Study of Seasonality of GNSS Positioning Utilisation Risk in Arctic Region
(38)	Marta Alvir, Katarina Stefanović, Filip Šklebar, Nenad Sikirica, Ivana Lučin, Renato Filjar

11:40 - 12:00	Analyzing Offshore Vessel Encounters: A Dataset for Enhancing Maritime Security and Monitoring
(58)	Vinicius D. do Nascimento, Claudio De Farias, Tiago Alves, Diego L. C. Dutra

12:00 - 12:20	A Dynamic Error Compensation method by fusing EMD and Neural Network for Shipborne Rotation Inertial Navigation
(32)	Xinming Ma, Shiqiao Qin, Yingwei Zhao, Jiaxing Zheng, Wenfeng Tan

12:20 - 12:40	SeaSentry: Maritime Real-Time Positioning in a Passive Radar-Detector Network
(129)	Taruna Tiwari, Shuo Li, Christopher Funk, Benjamin Noack, Christian Steger, Hilko Wiards, Matthias Steidel, Florian Schiegg, Nhat Minh Hoang, Mohit Mittal, Vesa Klumpp, Jörn Beschnidt

Tracking 2 (Room São Conrado): Isabel Schlangen

11:00 - 11:20	Online Monitoring for Multi-Object Measurement Model Parameters
(36)	Alexander Scheible, Michael Buchholz
11:20 - 11:40	Data-driven Interacting Motion Models with Adaptive Reparameterization
(156)	André Brandenburger, Isabel Schlangen
11:40 - 12:00	On Riemannian Angle Tracking of a Nearly Constant Velocity Target on the Unit Sphere
(115)	Umut Orguner, Aslı Gündüz (Ülgen), Gizem Ortaç Koşun
12:00 - 12:20	The CRLB for Tracking in Clutter with ML-PDA and ML-PMHT
(88)	M. Phil Lowney, Yaakov Bar-Shalom, Tod Luginbuhl, Peter Willett
12:20 - 12:40	A Bias Mitigation Methodology for Multiple Hypothesis Tracking in Multi-Sensor Multi-Target Fusion
(207)	Shaun Hoyt, William Blair, Aaron Lanterman

SS3: Extended Object and Group Tracking 1 (Room Guaratiba): Franz Hlawatsch

11:00 - 11:20	3D Extended Object Tracking based on Extruded B-Spline Side View Profiles
(49)	Longfei Han, Klaus Kefferpuetz, Jürgen Beyerer
11:20 - 11:40	Stochastic Medial Axis Transform for Bayesian Extended Object Tracking
(125)	Jiachen Zhou, Uwe Hanebeck, Albert Bauer, Harald Kruggel-Emden
11:40 - 12:00	A Leap forward in Hybrid Extended Object Tracking Architectures - Feature Assisted PMHT
(161)	Ahmed Tarad, Ahmed Kotb, Richard Schulz
12:00 - 12:20	Tracking Multiple Extended Objects with a Latent Directional Group Structure: A Nonparametric Bayesian Learning Approach
(158)	Thomas Bucco, Franz Hlawatsch

SS 5: Advanced Nonlinear Filtering 1 - Nonlinear Sampling (Room Pontal): Uwe Hanebeck

11:00 - 11:20	Deterministic Proposal Sampling Using Projected Cumulative Distributions
(20)	Dominik Prossel, Uwe Hanebeck

SS 5: Advanced Nonlinear Filtering 1 - Nonlinear Sampling (Room Pontal): Uwe Hanebeck

11:20 - 11:40	Deterministic Sampling with Separation of Variables in Spherical Coordinates
(168)	Daniel Frisch, Uwe Hanebeck
11:40 - 12:00	Nudged Particle Filter with Optimal Resampling Applied to the Duffing Oscillator
(147)	Ryne Beeson, Uwe Hanebeck
12:00 - 12:20	Efficient Parameter Inference for Lévy State Space Models through GPU-Accelerated Particle MCMC
(175)	Tim Hargreaves, Bill Z. Lin, Simon Godsill, Hong Ge

Thursday (10/07) - 14:30 - 16:30

SS4: LA Fusion 1 (Room Copacabana A): Pablo Rangel

14:30 - 14:50	Joint Vessel Multilateration and Classification Using Coastal Surveillance Cameras
(84)	Stiven Dias, André Braga, Willian Martinho, Pablo Rangel, José Oliveira, José Carvalho Jr.
14:50 - 15:10	Unmasking AIS spoofing with an enhanced method based on trajectory prediction and classification
(111)	Julio Cesar Ramos, Pablo Rangel, Rosa M. M. Leão
15:10 - 15:30	A Comprehensive Data Fusion Model for AIS-Based Maritime Research
(145)	Rafael Figueiredo, Jonatas Simões, Jean-David Caprace, Claudio De Farias
15:30 - 15:50	Extended Kalman Filter-Based Object Tracking Using Global and Local Frames
(178)	Eric de Lima, Stiven Dias, Marcos Máximo

Synthetic Aperture Radar / Radar (Room Copacabana B): Darin Dunham

14:30 - 14:50	From Air to Ground: Coordinating UAVs and UGVs in SAR missions
(184)	Tatiana Reimer, Bruno Olivieri, Millena Cavalcanti, Markus Endler
14:50 - 15:10	Collaborative Multi-UAV Data Fusion for SAR Applications with Moving Targets
(80)	Millena Cavalcanti, Bruno Olivieri, Thiago Lamenza, Markus Endler

Synthetic Aperture Radar / Radar (Room Copacabana B): Darin Dunham

15:10 - 15:30 A New Causal Meta-Learning Framework for Few-Shot SAR Target Classification

(46) Jiaxiang Liu, Xue-meng Hui, Zhunga Liu

15:30 - 15:50 Building Corner and NLOS Target Parameter Estimation Based on Diffraction Signal Utilization

(47) Yupeng Yu, Shisheng Guo, Zhihao Zhu, Zihan Xu, Yisen Zhou, Yufei Wei, Cui Guolong

SS6: Context-Based Information Fusion 1 (Room Mar Azul): Jesus Garcia

14:30 - 14:50 Fusion-Based Traffic Prediction for 5G Slicing: A Hybrid LSTM-Transformer Model

(208) Yongning Tang

14:50 - 15:10 Fusion-Based LSTM-GRU-Attention Model for Time Series Forecasting of Fouling Factor in Polymer Production Reactor

(86) Yellam Naidu Kottavalasa, Andrea Battaglia, Giovanni Bevilacqua, Gianni Marchetti, Lauro Snidaro

15:10 - 15:30 Enhancing Performance and Reliability in Maritime Target Fusion Through a Context-Driven Approach

(124) Pablo Rangel, José Carvalho Jr., Luiz Yuan, José Oliveira

15:30 - 15:50 Context-Driven Fusion of Drone Data for Improved Antenna Mapping in Coverage Networks

(163) Pablo Zubasti, Paula López, Jesús García, Jose Molina

Sonar Signals (Room Ipanema): José Gomes Carvalho

14:30 - 14:50 Source Detection in Broadband Passive SONAR with Vision Transformers and Poisson RFS Loss

(104) William Shaw, Marco Fontana, Murat Uney, Daniel Colquitt, Stuart Riches, Cerys Jones

14:50 - 15:10 AUV Flight Height Detection and Filtering from Sidescan Sonar Images

(204) Khoa Nguyen, Mingchao Liang, Ellen Davenport, Florian Meyer

15:10 - 15:30 Localization using DVB-T Signals: Experimental Insights and Validation

(4) Joakim Rydell, Anja Hellander, Jacob Eek, Gustaf Hendeby

15:30 - 15:50 Source Localization and Reflection Point Determination Using Distributed Array Sensors

(100) Devanand Palur Palanivelu

Audio - LLM (Room São Conrado): Raghavendra Ramachandra

14:30 - 14:50	DualStreamNet : Robust Audio-Video Deep Fake Media Detection using Complimentary Information Fusion
(22)	Raghavendra Ramachandra
14:50 - 15:10	QMAVIS: Long Video-Audio Understanding using Fusion of Large Multimodal Models
(153)	Zixing Lin, Jiale Wang, Gee Wah Ng, Lee Onn Mak
15:10 - 15:30	Exploring Language Model Fusion to Improve Generalization in Portuguese Hate Speech Detection
(109)	Annie Amorim, Gabriel Assis, Daniel Oliveira, Aline Paes
15:30 - 15:50	Eye Tracking-Based Speech Label Estimation for Auditory Attention Decoding with Portable EEG
(96)	Johanna Wilroth, Oskar Keding, Martin Skoglund, Emina Alickovic, Martin Enqvist

SS3: Extended Object and Group Tracking 2 (Room Guaratiba): Jindrich Dunik

14:30 - 14:50	Distributed Tracking of Circular Formation Targets via Graph-Theoretic Data Association
(155)	Jingru Niu, Feng Yang
14:50 - 15:10	Methods to Handle Interior and Boundary Measurements for the Gaussian Process Model
(196)	Martin Baerveldt, Edmund Brekke
15:10 - 15:30	Efficient Uncertainty Propagation in Gaussian Process-Based Extended Object Tracking
(144)	Eugen Ernst, Florian Pfaff
15:30 - 15:50	Clustering-free Extended Target Tracking Method Based on Motion and Shape Information Feedback
(202)	Yi Luo, Wujun Li, Yuhuan Xiong, Jiaye Yang, Haiyi Mao, Wei Yi

SESSION SS5: Nonlinear Gaussian Methods - Nonlinear Gaussian Methods (Room Pontal): Renato Zanetti

14:30 - 14:50	High-Quality Assumed Gaussian Filtering based on Wasserstein Barycentric Interpolation
(126)	Jiachen Zhou, Uwe Hanebeck
14:50 - 15:10	Kernel-Based Ensemble Gaussian Mixture Probability Hypothesis Density Filter
(77)	Dalton Durant, Renato Zanetti

**SESSION SS5: Nonlinear Gaussian Methods -
Nonlinear Gaussian Methods (Room Pontal): Renato Zanetti**

15:10 - 15:30	Efficient Gaussian Mixture Filters based on Transition Density Approximation
(217)	Ondrej Straka, Uwe Hanebeck
15:30 - 15:50	Optimal Transport as a Reduction Technique for Deterministic Nonlinear Filtering
(50)	Felipe Giraldo-Grueso, Andrey Popov, Uwe Hanebeck, Renato Zanetti

Thursday (10/07) - 17:00 - 19:00

SS4: LA Fusion 2 (Room Copacabana A): Pablo Rangel

17:00 - 17:20	Federated Inspired Hyperparameter Aggregation for CVRP
(174)	Natasha Fonseca, Joao Vitor Dias Carneiro, André Lobo Giron, Pedro Henrique González, Claudio De Farias
17:20 - 17: 40	An object-tracking technique for counting grape clusters in Brazilian Northeast's pergola vineyards
(180)	Arthur Mendonça Sasse, João Pedro V. B. Wieland, Adriano Pereira, Lincoln R. Proença, Ian M. P. Freitas, Pablo Rangel, Claudio De Farias

LIDAR (Room Copacabana B): Martin Adams

17:00 - 17:20	Efficient Object Detection Using Quasi-2D LiDAR Data for Autonomous Vehicles
(127)	Samanti Das, Joachim Clemens, Darshan Ghugare
17:20 - 17: 40	Stixel-based Free Space Estimation for USVs using Stereo Camera and LiDAR
(106)	Johannes Skarø, Trym Nygård, Rudolf Mester, Annette Stahl, Edmund Brekke
17:40 - 18:00	Point Cloud Data Registration for Outdoor and Unstructured Environments
(139)	Pablo Barrios, Martin Adams
18:00 - 18:20	An Entropy-Based Targetless Real-Time Radar-Lidar Point Cloud Alignment System for Smart Sensor Fusion
(82)	Xiaojun Chen, Kuochu Chang, Ting Yuan

SS6: Context-Based Information Fusion 1 (Room Mar Azul): Zoran Sjanic

17:00 - 17:20	Occlusion-aware Risk Assessment and Optimal Navigation in Urban Intersections
(194)	Mohamed Ben Rabah, Charifou Orou Mousse, Roland Chapuis, Romuald Aufrere

17:20 - 17: 40	Localization with Imprecise Observations using Qualitative Reasoning
(2)	Zoran Sjanic, Adeline Secolo, Mariusz Wzorek, Paulo Santos

SS7: Aerospace Estimation and Fusion (Room Ipanema): Keith LeGrand

17:00 - 17:20	Multi-Fidelity Markov-Chain Monte Carlo for Satellite Orbit Determination
(63)	Brandon Jones
17:20 - 17: 40	A Cylindrical Distribution for Uncertainty Representation at Equilibria of the Circular Restricted Three-Body Problem
(176)	Ryne Beeson
17:40 - 18:00	Accurate Tracking of Uncooperative Targets using Reachability Analysis
(185)	Ryan Glenn, Puneet Singla
18:00 - 18:20	Deferred Higher-Order Splitting for Adaptive Gaussian Mixture Orbit Uncertainty Propagation
(211)	Gerard Siciliano, Keith LeGrand, Jackson Kulik

Deep Learning 1 (Room São Conrado): Filip Slijkhuis

17:00 - 17:20	Local Calibration Testing in Supervised Machine Learning Models Using Input Space Kernels
(39)	Markus Walker, Marcel Reith-Braun, Uwe Hanebeck
17:20 - 17: 40	ITNet: Irregular Timeseries Data Fusion with Attention Mechanisms
(70)	Antoine Honoré, Pia Appelquist, Ming Xiao
17:40 - 18:00	Lipschitz-constrained Generative Network with Visual-semantic Mutual Alignment for Generalized Zero-shot Learning
(45)	Xue-meng Hui, Zhunga Liu, Jiaxiang Liu
18:00 - 18:20	Exploiting causal structures for efficient neural network training: A study on data efficiency and robustness
(108)	Filip Slijkhuis, Kathryn Laskey, Franck Mignet, Gregor Pavlin, Lennard Jansen

Deep Learning 1 (Room São Conrado): Filip Slijkhuis

18:20 - 18:40	A Ship Detection Technique Using Weightless Neural Networks
(148)	Adriano Pereira

Navigation (Room Guaratiba): Frederik Gustafsson

17:00 - 17:20	Sequential Least-Squares State Estimation Based on Correlated Observations with Partial Information
(17)	Hendrick Lambert
17:20 - 17:40	Error-State Kalman Filter for Autonomous Celestial-Based Navigation
(134)	Lucas Camargo da Silva, Stiven Dias, Marcelo Bruno
17:40 - 18:00	Applying Celestial-inertial Integrated Navigation for an Initial Position Determination
(28)	Yingwei Zhao, Shiqiao Qin, Dongkai Dai, Wenfeng Tan, Jiaxing Zheng, Xiangyuan Li
18:00 - 18:20	Exploring the Properties of Multi-Agent Terrain-Aided Navigation
(23)	Eric Sevonius, Gustaf Hendeby, Fredrik Gustafsson

SS5: Advanced Nonlinear Filtering 3 (Room Pontal): Tales Imbiriba

17:00 - 17:20	Diffusion in Lagrangian Grid-based Predictors
(98)	Jakub Matousek, Jindrich Dunik, Felix Govaers, Joshua Gehlen
17:20 - 17:40	Aspects Of Density Approximation By Tensor Trains
(110)	Jiří Ajgl, Ondrej Straka
17:40 - 18:00	On a fast CPD-Tensor Operator for Target Tracking
(142)	Joshua Gehlen, Felix Govaers
18:00 - 18:20	Interpretable Augmented Physics-Based Model for Estimation and Tracking
(213)	Ondrej Straka, Jindrich Dunik, Pau Closas, Tales Imbiriba
18:20 - 18:40	Model-based Multi-object Visual Tracking: Identification and Standard Model Limitation
(105)	Jan Krejčí, Oliver Kost, Yuxuan Xia, Lennart Svensson, Ondrej Straka

Friday (11/07) - 11:00 - 13:00

OSTEWG Meeting (Room Grumari)

JAlF Special Session (Room Copacabana B):

11:00 - 11:20	Dynamically Iterated Filters: A Unified Framework For Improved Iterated Filtering Via Smoothing Anton Kullberg, Martin A. Skoglund, Isaac Skog, and Gustaf Hendeby.
11:20 - 11:40	A Multiple Extended Object Tracker with the Gaussian Process Model Utilizing Negative Information Martin Baerveldt, Michael Ernesto López, Edmund Brekke.
11:40 - 12:00	A Comparison of Data-Driven Approaches for Modelling Target Behaviour Isabel Schlangen, André Brandenburger, Mengwei Sun, and James R Hopgood
12:00 - 12:20	Circular Detection Driven Adaptive Birth Densities Patrick Hoher, Tim Baur, Johannes Reuter, Felix Govaers and Wolfgang Koch
12:20 - 12:40	Data Association With Camera Parameters Estimation for Object Tracking From Drones Zijiao Tian, Yaakov Bar-Shalom, Rong Yang, Huang Hong'An Jack and Gee Wah NG

Wildlife (Room Mar Azul): Terence van Zyl

11:00 - 11:20	Automated Tracking of Beaked Whales with Integrated Track Smoothing and Stitching (187) Clair Ma, Thomas Kropfreiter, Lauren Baggett, Simone Baumann-Pickering, Florian Meyer
11:20 - 11:40	Wildlife Target Re-Identification Using Self-supervised Learning in Non-Urban Settings (137) Mufhumudzi Muthivhi, Terence van Zyl
11:40 - 12:00	Artificial Intelligence to the rescue of the Ecuadorian Amazon: Monitoring changes with Deep Learning (138) Víctor Saquicela, Hernan Coronel, Kevin Juela, Natalie Aubet, Lucia Lupercio
12:00 - 12:20	Towards a Spatiotemporal Fusion Approach to Precipitation Nowcasting (151) Felipe Antônio Nieto Curcio, Pedro Castro, Augusto José Fonseca, Rafaela Castro, Raquel Franco, Eduardo Ogasawara, Victor Stepanenko, Fabio Porto, Mariza Ferro, Eduardo Bezerra

SS7: Aerospace Estimation and Fusion 2 (Room Ipanema): Erik Leitinger

11:00 - 11:20	A Block-Sparse Bayesian Learning Algorithm with Dictionary Parameter Estimation for Multi-Sensor Data Fusion
(37)	Jakob Möderl, Anders Malthe Westerkam, Alexander Venus, Erik Leitinger

11:20 - 11:40	Variational Message Passing-based Multiobject Tracking for MIMO-Radars using Raw Sensor Signals
(48)	Anders Malthe Westerkam, Jakob Möderl ,Erik Leitinger, Troels Pedersen

11:40 - 12:00	Dynamical Update Maps for Particle Flow with Differential Algebra
(53)	Simone Servadio

Deep Learning 2 (Room São Conrado): Lin Gao

11:00 - 11:20	GCINet: Neural Network Enhanced Weight Design For GCI Fusion
(140)	Haiyang Sun, Lin Gao, Giorgio Battistelli, Luigi Chisci, Ping Wei

11:20 - 11:40	A Deep Learning Approach to Identifying Neural SDE Models Using the Signature Kernel
(141)	Toshiro Kusui, Hiromichi Nagao, Shin-ichi Ito, Shinya Katoh, Tomoki Tokuda

11:40 - 12:00	Towards Explainability for Transformer-Based Multi-Target Multi-Sensor Tracking: Bridging the Gap with Established Techniques
(143)	Valentin Sonntag, Jean-Marc Le Caillec, Alain Peres

12:00 - 12:20	Quantifying Calibration Error in Neural Networks through Evidence Based Theory
(35)	Koffi Ouattara, Ioannis Krontiris, Theo Dimitrakos, Frank Kargl

Unique / Diverse (Room Guaratiba): Payam Shahsavari

11:00 - 11:20	Integrating Image-Based Time Series Features with the Temporal Fusion Transformer for Stock Price Prediction
(87)	Soroush Shahsafi, Farnoosh Naderkhani

11:20 - 11:40	Benchmarking Neural Rendering: Instant Neural Graphics Primitives vs Gaussian Splatting
(205)	Luiz Felipe Ribeiro Correia

Unique / Diverse (Room Guaratiba): Payam Shahsavari and Ruixin Niu

11:40 - 12:00	Game Strategies for Entanglement Paths in Quantum Network
(13)	Nageswara Rao, Chris Ma, Fei He
12:00 - 12:20	Orthogonal Sequential Fusion in Multimodal Learning
(135)	Sami Labbaki, Peter Minary
12:20 - 12:40	The Parietal Local Connectivity Reflects Impacts of Hearing Aids Noise Reduction on Listening Effort
(41)	Payam Shahsavari Baboukani, Emina Alickovic, Jan Ostergaard
Hackathon (Room Pontal): Claire Laudy	

Tutorials

Full-day Tutorial

Guaratiba Room

Practical multi-target tracking and sensor management with Stone Soup

Half-day Tutorial- 10:00 - 13:00

Grumari Room

Causal inference and data fusion: principles, challenges, and applications

Marazul Room

An introduction to track-to-track fusion and the distributed Kalman filter

Copacabana B Room

Deep learning for multimodal data fusion: theory and practice

São Conrado Room

Information fusion using belief functions

Pontal Room

**Multi-target tracking and multisensor information fusion:
recently developed advanced algorithms**

Copacabana A Room

**Advanced techniques for low-level and mid-level sensor data
fusion in automotive applications**

Half-day Tutorial- 14:30 - 17:30

Grumari Room

**Quantum computing and quantum physics inspired algorithms:
introduction and data fusion examples**

Copacabana B Room

Estimation of noise parameters in state-space model

São Conrado Room

Multi-agent and multi-object information fusion

Pontal Room

Poisson multi-Bernoulli mixtures for multiple target tracking

Copacabana A Room

Selected topics in sequential Bayesian estimation

Teen FUSION Workshop

Tuesday

Theme: Sensor Fusion in AI Age - Bossa Room (3rd Floor)

10:00 - 10:10 Introduction - Presentation

10:10 - 10:50 Paper presentation

10:50 - 11:20 Keynote presentation (Chee-Yee Chong)

11:20 - 11:40 Q&A

11:40 - 11:50 Awards

Plenary Speakers

July 9th, 2025

TinyML: Democratizing AI at the Edge for Global Development



Bio:

Marcelo Rovai received the title of Professor Honoris Causa from the Federal University of Itajubá (UNIFEI), Brazil. Marcelo received an Engineering degree from UNIFEI and an advanced specialization from the Polytechnic School of São Paulo University (POLI/USP). Further enhancing his expertise, he earned an MBA from IBMEC (INSPER) and a Master's in Data Science from the Universidad del Desarrollo (UDD) in Chile. With a career spanning several high-profile technology companies such as AVIBRAS Airspace, AT&T, NCR, and IGT, where he served as Vice President for Latin America, he brings industry experience to his academic endeavors. He is a prolific writer on electronics-related topics and shares his knowledge through open platforms like Hackster.io. He is dedicated to educational outreach, serving as a volunteer professor at the IESTI (UNIFEI) and engaged with the TinyML4D group and the EDGE AIP – the Academia-Industry Partnership of EDGEAI Foundation as a Co-Chair, promoting EdgeAI education in developing countries

July 10th, 2025

Advancements in Autonomous Robotics for Offshore and Aerial Applications

Bio:

João Paulo Papa is a full professor at the Department of Computer Science, School of Sciences, São Paulo State University. He is a Fellow of the International Association for Pattern Recognition, the Asia-Pacific Artificial Intelligence Association, the Alexander von Humboldt Foundation, and the Brazilian National Council for Scientific and Technological Development. He was a visiting scholar at MIT (2024-2025) and Harvard University (2014-2015) and a Brazilian delegate at the International Association for Pattern Recognition. He is also the Coordinator of the eScience Program at the São Paulo Research Foundation and a member of the Advisory Committee in Computer Science, CNPq. His research interests include machine learning, optimization, computer vision, and language models.



July 11th, 2025

Advancements in Autonomous Robotics for Offshore and Aerial Applications



Bio:

Alessandro Jacoud received the Electronics Engineer degree from the Federal University of Rio de Janeiro (UFRJ) in 2000, the M.Sc. degree (in 2002) and the Ph.D. (in 2007) degree from Graduate School and Research in Engineering (COPPE)/UFRJ (Brazil), both in electrical engineering. Currently, he is an Associate Professor in the Department of Electronics and Computer Engineering (DEL/Poli/UFRJ). In 2011, he joined COPPE/UFRJ. Since 2007, he has been with the Brazilian Antarctic Program developing a ROV for underwater inspection and visited the Brazilian station, at Antarctic. In 2017 and 2020, he received the Innovation Technology Award granted by the Brazilian National Agency for Petroleum, Natural Gas and Biofuels (ANP), developing a robot for topside inspection and autonomous drones for oil spill detection in the sea, respectively. His research interests are nonlinear control theory, control of uncertain nonlinear systems, sliding mode control, extremum-seeking control, real-time control systems, industrial processes, automation, robotics, and sources of renewable energy. Prof. Alessandro is a member of the Brazilian Automatic Society and of the IEEE Control Systems Society.

Social Events

In this year's edition there will be plenty of opportunities to socialize, know the Marvellous city and the Fusion Community.

Welcoming event: This event has a purpose of welcoming newcomers to the conference. It is a chance to give a warm welcome and to present the conference for those that are seeing fusion for the first time. It is going to be an informal event following the Buteco culture in Rio.

Ice breaker: Right after the tutorials, we will have a nice moment of cocktail at the famous Copacabana beach right at the Othon's Kiosk - Wave. It will be a moment to celebrate the beginning of another great event, to see old friends and make new ones.

Opening: Actually we will have two events here! In the morning we will take you to see one of the more authentic and famous tourist spots in Rio - The beautiful and charming Sugar Loaf, where you will be able to see Rio in all of its majesty. Later in the evening we will have the opportunity to congregate at the for an informal gathering after the sessions.

5k RUN: The iconic 5k Run this year will take place at the also iconic Rodrigo de Freitas lake. The runners will join at the hotel lobby and then go together to the starting point of the race. This is a chance not only to participate in the event but also to get to know one of the postal cards of the city.

The Gala Dinner will be held at the Fogo de Chão restaurant, one of the highest regarded barbecue houses in Brazil. It is located at the Botafogo bay, featuring a breathtaking amazing view of the bay. It will be a night to remember.

Organization Committee

General Chairs



Claudio Miceli de Farias
Federal University of Rio de Janeiro
Brazil



Paulo Costa
George Mason University
USA

Technical Program Chairs



Anne-Laure Jousselme
CS Group
France



Branko Ristic
RMIT University
Australia

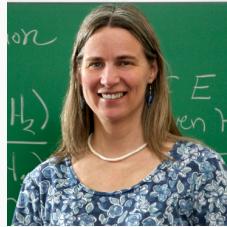


Gustaf Hendeby
LIU
Sweden

Program Chairs



Erik Blasch
Air Force Office of Scientific Research
USA



Kathryn Laskey
George Mason University
USA

Plenary Chairs



Roy Streit
Metron
USA



Chee-Yee Chong
Independent Researcher
USA

Awards Chairs



Audun Jøsang
University of Oslo
Norway



Lyudmila Mihaylova
University of Sheffield
UK

Tutorial Chairs



Jesus Garcia Herrero
Universidad Carlos III
Spain



Ali Raz
George Mason University
USA

Special Session Chairs



Zhansheng Duan
Xi'an Jiaotong University
China



Lauro Snidaro
University of Udine
Italy

Industrial Chairs



José Brancalion
EMBRAER
Brazil



André Braga
Federal University of Ceará / EMBRAER
Brazil



Leopoldo Lusquino
UNESP
Brazil

Financial Chairs



Henrique Serdeira
Federal University of Rio de Janeiro
Brazil

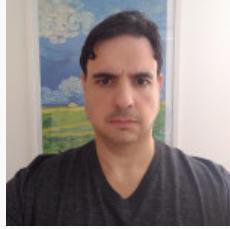
Local Arrangements



Flávia Delicato
Fluminense Federal University
Brazil



Pedro Gonzalez
Federal University of Rio de Janeiro
Brazil



Diego Dutra
Federal University of Rio de Janeiro
Brazil



Pablo Rangel
Brazilian Navy
Brazil

Welcome Chairs



Zoran Sjanic
Linköping University
Sweden



Ryne Beeson
Princeton University
USA

Competitions Chairs

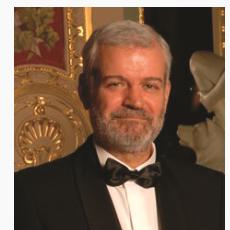


Claire Laudy
Thales Research
France



Leandro Santiago
Fluminense Federal University
Brazil

International Chairs



Alfonso Farina
Consultant, Leonardo SpA, Radar Division
Italy



Ting Yuan
SJTU
China

Useful Information

General Information

- **Payment:** Credit cards are widely accepted in Brazil, including at restaurants, stores, and taxis. You'll only need a small amount of cash for minor expenses. There is an ATM located in the hotel lobby. Mobile payments (via phone) are commonly used, but always verify availability beforehand.

• Transportation:

- **Uber** is the recommended mode of transportation within the city. It is safe and very affordable.

- **Taxis** are also a good option, just make sure they are licensed.

- **Public transit:** Buses and the metro are safe and functional. The metro system accepts contactless payments via credit card or mobile devices.

• Mobile Connectivity:

- 4G/5G service is widely available in the city

- Most international SIM cards work in Brazil, but if needed, you can purchase a prepaid SIM card locally for under \$4 USD.

• Tourism and Transfers:

General Information

- Our partner, **Blumar Turismo**, will offer tourism packages for those interested in additional activities.

- Airport transfers can also be arranged through Blumar. Details are available on the conference website.

• Local Aspects:

- English is not widely spoken, but Brazilians are generally very helpful. Using **Google Translate** is recommended and effective for most situations.

- Electricity: Brazil uses 127V or 220V (depending on the region - Rio uses 127V) and **Type N power plugs** (also compatible with Type C). Bring a universal adapter.

- Time Zone: Rio is in the **Brasília Time Zone (GMT-3)** and **does not observe daylight saving time**.

- Tipping: Tipping is not mandatory, as a **10% service charge** is usually included in restaurant bills. Additional tipping is appreciated but optional.
- Drinking Water: Tap water is generally not recommended for drinking. Bottled water is widely available and inexpensive
- Weather in July: Rio's winter is mild. Expect **temperatures between 18-26°C (64-79°F)**. It may be breezy near the coast, so pack a light jacket or sweater.

- Cultural Etiquette: Brazilians are warm and informal. A handshake or light hug is common in greetings. Personal space is smaller than in some other cultures.

• **Medical Assistance:**

- In case of medical needs, hospitals and **UPAs** (Emergency Care Units) are available.
- **Public hospitals** are free of charge.

• **Conference Guidelines:**

- Please **wear your conference badge** at all times during official activities.
- **Accompanying persons** are welcome at social events. Visit the registration desk for more information.

Safety Tips

- Keep your **cell phone secure** and be mindful of your surroundings. Avoid wearing expensive jewelry or watches in public.
- **Do not leave personal belongings unattended.**
- **Use sunscreen** regularly—Rio's sun can be intense.
- By Brazilian law, **all prices must be displayed**. Always confirm prices before committing. If you suspect a scam, contact the **Tourist Police**.
- Prefer eating at **beach kiosks** with visible menus. **The Othon kiosk** near the hotel is a reliable option.
- Avoid walking alone at night, especially in non-touristy areas.

- Be cautious around ATM machines, especially in isolated or poorly lit areas. Use ATMs located inside banks or hotels. Do not accept help from strangers at ATMs or when using public transport ticket machines.
- If you get lost, enter a hotel, shop, or restaurant to reorient yourself or ask for help.
- Beware of pickpockets in crowded places, especially markets, metro stations, and tourist attractions like Christ the Redeemer or Sugarloaf Mountain.

Important Contacts

Emergency Medical Services (SAMU): 192

Othon Hotel: +55 (21) 2106-0200

Police: 190

Tourist Police (English-speaking): +55 (21) 2332-7949

Tourism Information (RioTur): +55 (21) 2088-6210

**Tourist Emergency Support (Embratur, 24/7):
0800-570-0414 (within Brazil) Government tourism
agency hotline**

Lost & Found (Public Transit): +55 (21) 2332-8595

For metro or bus-related item recovery



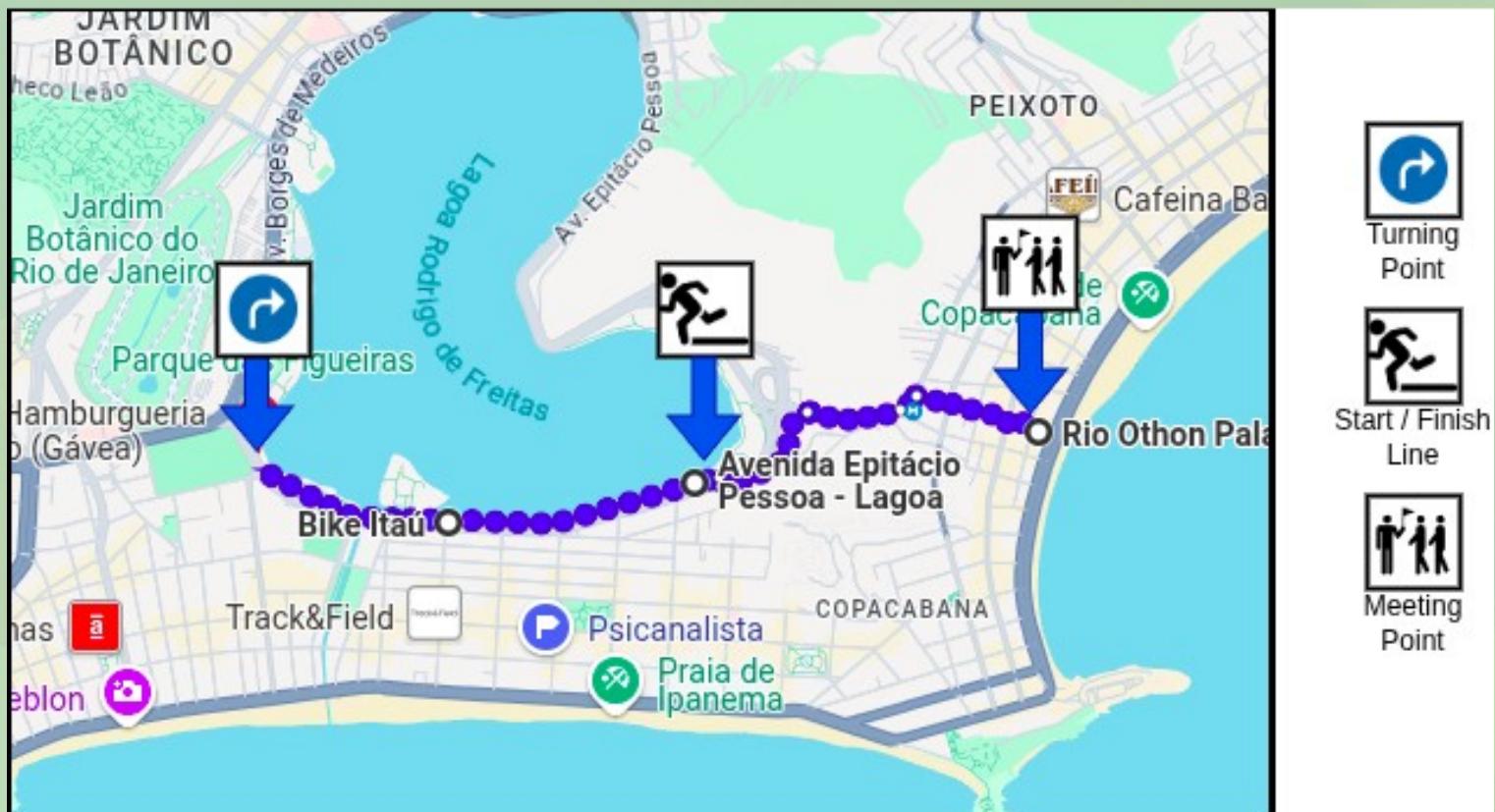
Are you ready?

As is tradition at Fusion Conference, we will be holding a 5K Run for all our attendees!

The 5K will take place at Lagoa Rodrigo de Freitas, a wonderful spot where Cariocas (the people of Rio de Janeiro) love to exercise and enjoy outdoor activities. With stunning views all around, you'll get to run in the heart of the Marvelous City!

We will meet in front of Othon Hotel, where Fusion is located. At 7:00 AM on 10th of July, we'll walk together to the starting line at Lagoa Rodrigo de Freitas — a 20-minute walk through the charming streets of Copacabana.

The turning point of the race will be in front of Flamengo, Rio's most famous sports club, well known for its football and rowing teams. The finish line will be in the same place we started, marking the end of our 5K journey.



Healthy Tips

Hydrate: Drink plenty of water before, during, and after your run.

Warm-up: Take a few minutes to stretch and warm up your muscles beforehand.

Pace yourself: Run at a comfortable pace — it's not a competition, it's a celebration!

Listen to your body: If you need to slow down or walk, that's perfectly fine. Your health and well-being come first.

Your Health is Important

To keep everyone comfortable and safe, we ask all participants to confirm their health status and that they are fit to take part in physical activity. If you have any health issues or conditions (such as diabetes, asthma, or heart problems) or any doubts about participating, please check with a health professional first and let us know in advance.

Registration

To join this activity, please register in advance by filling out the form below:

<https://forms.gle/M5VHDkz51uSKYXFz5>

We're looking forward to seeing you there! Let's celebrate health, fitness, science and friendships in the beautiful city of Rio de Janeiro!

Notes

This image shows a template for handwriting practice. It consists of a grid of horizontal lines intended for letter formation. The grid is composed of ten rows of lines, each row containing a top line, a middle dashed line, and a bottom line. A large, semi-transparent watermark with the words "Handwriting" repeated in a stylized font is centered on the page.





