

LAFUSION 2023 REPORT

LAFUSION 2023: A FIRST WORKSHOP IN INFORMATION FUSION IN LATIN AMERICA

The culmination of months of meticulous planning and anticipation, the LAFUSION 2023 workshop, hosted by the Federal University of Rio de Janeiro, unfolded as a testament to the power of international collaboration in the realm of technology.¹ Last November 23rd in Rio, there was the first event of its kind. In this report, we delve into the multifaceted dimensions of the event, exploring its diverse participation, cutting-edge presentations, interactive panels, and the over-

arching impact it has had on the global technological landscape.

The LAFUSION workshop attracted participants from over 10 different countries of Latin America, underscoring its status as a truly international gathering of minds. Representatives from academic institutions, industry sectors, and research organizations converged at the event,

Claudio Miceli de Farias
Federal University of Rio de Janeiro, Brazil
cmicelifarias@cos.ufrj.br

bringing with them a rich tapestry of perspectives and experiences that served as the cornerstone of insightful discourse throughout the workshop. It was a hybrid conference with 80 attendees, with 50 in-person and 30 virtual participants. The workshop was streamed on YouTube which had nearly 400 views. The audience was vibrant and interactive.

A cornerstone of the LAFUSION workshop was its lineup of presentations, which served as a platform for researchers and experts to showcase the latest advancements in various fields of Information Fusion. There were 20 papers presented, ranging from artificial intelligence and machine learning to environmental protection. Attendees were treated to a plethora of talks that elucidated groundbreaking research findings, emerging trends, and innovative methodologies driving the forefront of technological innovation.

Complementing the presentations were two panels, designed to provide attendees with practical, hands-on experience in cutting-edge technologies. Participants immersed themselves in intensive sessions, ranging from deep learning boot camps to blockchain hackathons, where they gained invaluable insights, honed their skills, and explored the potential applications of emerging technologies in real-world scenarios.

Dr. José Brancalion presented Embraer's research in the area of Information Fusion as well as several case studies. Those case studies gave the audience a view of the company's



Audience attending the first keynote.



Livestream presentation since LAFUSION was a hybrid workshop.

¹ <https://lafusion.cos.ufrj.br/>



Prof. Eduardo Bezerra From CEFET-RJ presents a new Precipitation nowcasting method.

direction and research, and it was very interesting to see how research efforts outside academia can lead to remarkable results.

The second panel was given by Prof. Claudio Miceli and it intended to showcase approaches to prepare papers for the FUSION Conference. One of the goals of the workshop was to form and prepare an Information Fusion community to interact with the FUSION community worldwide. In this talk, Prof. Miceli showcased the most common mistakes and potential solutions in the papers submitted to the workshop.

Integral to the fabric of the LAFUSION 2023 workshop were the networking opportunities it afforded, serving as fertile ground for the cultivation of professional relationships and the exchange of ideas beyond the confines of formal sessions. Attendees engaged in vibrant discussions, forged meaningful connections, and laid the groundwork for future collaborations that promise to transcend borders and propel the Latin American Information Fusion community forward.

Three papers were awarded, and there was a tie for the Best Paper award. The papers “A Heterogeneous Data Integration for Vessel Activity Monitoring in Territorial Waters” and “ESS Technologies Evaluated by a Swarm Evolutionary Metaheuristic: An Information Fusion Concepts Application



Leonardo V. Acioly Filho was awarded the Best Paper.

in Smart Grids” both received the Best Paper award and authors received a 100% waive on FUSION 2024 registration. The paper “Enhancing Semantic Understanding in Command and Control: An Ontological Approach for Message Enrichment” received a Runner-up award. A special thanks go to the FUSION 2024 organizers and ISIF for their support.

In retrospect, the LAFUSION 2023 workshop stands as a testament to the transformative power of international collaboration in driving innovation. Through its diverse participation, cutting-edge presentations, interactive panels, and networking opportunities, the event not only facilitated the exchange of knowledge and ideas but also served as a catalyst for forging lasting partnerships.

As a direct result of LAFUSION 2023, an LAFUSION special session will be held at FUSION 2024 in Venice. We expect to see not only the extended versions of the papers presented in the LAFUSION 2023 workshop but also some new faces! Finally, LAFUSION 2024 is already in the making! Hope to see you all July in Venice and November in Rio.