

INTRODUCTION TO THE ISSUE

PERSPECTIVES MAGAZINE

Benvenuti al settimo numero della rivista *Perspectives*!¹ The 27th International Conference on Information Fusion returns to Italy, 18 years after its inaugural Italian edition in Florence. While your mind may wander through the canals of the magnificent city of Venice, you will surely appreciate projecting yourself toward the challenges that the information fusion community will face in the coming years.

This seventh issue provides such an opportunity by focusing on two stimulating areas that are “ethics” and “explainability.” The first feature paper, by Wolfgang Koch from Fraunhofer FKIE (Germany), is an opinion piece entitled “Information Fusion for Defence—Discussion of Ethical Concerns” that sheds light on the intersection of artificially intelligent data and information fusion for enhancing security, from a modern German military perspective. It advocates soldierly dignity as a foundational element for the ethical design of information fusion systems, a point of view that may generate interesting discussions.

The second feature paper is by Ali K. Raz and Kuo-Chu Chang from George Mason University (USA), and Erik Blasch from MoveJ Analytics (USA), entitled “A Systems Engineering Perspective on AI Test and Evaluation: Explainability, and Counterfactuals.” It advocates for the consideration of System Engineering principles into information fusion systems design, integrating Artificial Intelligence and Machine Learning through the whole life-cycle. They describe two methods, Explainable AI and Counterfactual Test and Evaluation, which should become standard practice for such an integration.

For the first time, this issue inaugurates a short “Anecdotes” section, by the pen of James Ferry from Metron (USA) who shares his “Close Encounter of the Third Kind with ChatGPT.” It is our hope that others will find technically interesting vignettes they can tell in one page.

Building the future requires a solid foundation of the past. The information fusion history section presents two noteworthy pieces: Franklin E. White Jr., former chair of the JDL Data Fusion subpanel, offers a brief history of the Joint Directors of Laboratories (JDL) data fusion group, and the genesis of the now famous JDL data fusion model. An interview with Donald Reid by Chee-Yee Chong illuminates the author’s seminal

1979 paper, which introduced Multiple Hypothesis Tracking (MHT).

The traditional Book Review section contains two articles. The first is a review by Larry Stone of Metron (USA) of the book *How to Measure Anything: Finding the Value of “Intangibles” in Business* by Douglas Hubbard. The other article is a concise overview by Lyudmila Mihaylova of *Deep Reinforcement Learning Hands-On* by Maxim Lapan. We hope the review and summary inspire readers to explore these books further.

As customary, this issue includes a comprehensive and beautifully illustrated report on the 26th FUSION conference, held in Charleston, South Carolina, USA, in 2023 by General chairs Terry Ogle (Georgia Tech Research Institute, USA) and Darin Dunham (Lockheed Martin, USA), with behind the scenes support from Jennifer Ogle (Clemson University, USA). You will also discover the 2024 ISIF awardees for Lifetime of Excellence and Young Investigator awards, recipients of the FUSION 2023 Best Paper and Best Student Paper awards, as well as updates from the two ISIF working groups: the Evaluation of Techniques for Uncertainty Representation (ETUR) and the Open-Source Tracking and Estimation (OSTE).

Without the invaluable contributions of all authors, the precious assistance of Darin Dunham, ISIF Vice President, Working Groups and Sponsorship, and the diligence of the *Perspectives* editorial team, this seventh issue would not have been possible. I extend a warm welcome to Chee-Yee Chong, who graciously agreed to join the team as Information Fusion History Associate Editor. I express my gratitude to the other Associate Editors Paulo Costa, Murat Efe, Jesus Garcia Herrero, Wolfgang Koch, Lyudmila Mihaylova, Emre Ozkan, Associate Editor-in-Chief Roy Streit, Administrative Editor David W. Krout and ISIF Vice President, Publications, Dale Blair for their unwavering support throughout the production of this issue. As always, Kristy Virostek, our Production Manager, ensured that everything proceeded smoothly. Our weekly meetings, spanning eleven time zones, have proven to be immensely productive!

A sincere thank you to everyone for your dedication, ideas, and energy.



Anne-Laure Jousselme
EiC *Perspectives Magazine*

¹ Welcome to the seventh issue of *Perspectives* magazine!



Journal of Advances in Information Fusion

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Foreword to the Special Issue on Graph-Based Localization and Tracking

