



TAIMA 2026

SPECIAL SESSION CALL FOR PAPERS

Image analysis: from measure to certified decision

Image features are at the core of any computer vision application for key-point detection and description, segmentation or classification purpose. After 50 years of researches, the existing solutions are coming only from mathematics or computer sciences without relationship to the nature of the observed scenes. In the other hand, the decision theory is based on the feature combination with measured properties of uncertainties and relevance in order to establish a decision and associated uncertainty. This special session focuses on current trends in computer vision allowing to link the features requires in computational imaging and the associated metrology in decision making. This special session will explore all the topics related to these questions from the theoretical point of view (distance, feature definition, uncertainty and relevance, data combination...) to the validation in using conditions (medical imaging, control quality by vision, remote-sensing...).

TOPICS OF INTEREST

- **Image feature and metrics:** texture features, geometrical features, distance and metrics in high dimensional space for multi-scale / multi-spectral / multi-modalities features,
- **Metrology:** uncertainties definition and assessment of image features, relevance definition and assessment of image features in decision making, calibration (process and reference data sets), etc.
- **Certified decision:** decision theory, data fusion, decision combination, explainability, interpretability, image matching and learning decision using uncertainties (measured or processed).

SUBMISSION TYPE

Submissions must be written in **English**, include both **classical** and **deep learning** approaches, and will be **peer-reviewed by an international committee**. The maximum length is **6 pages**.

IMPORTANT DATES

Sub. opening: 25 **Feb. 2026**
Sub. deadline: 30 **Mar. 2026**
Accept. notif.: 15 **Apr. 2026**
Final version sub.: 30 **Apr. 2026**

CHAIRS

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