



August 14-16, 2026

Shanghai, China

2026 IEEE 9th International Conference on PATTERN RECOGNITION AND ARTIFICIAL INTELLIGENCE

SPECIAL SESSION 09

Application of Artificial Intelligence in Astrophysics

In the new era of data-driven astronomy, telescopes are continuously generating massive volumes of observational data, placing us in an unprecedented deluge of information. With these vast, complex, and high-dimensional datasets, artificial intelligence is becoming the golden key to unlock the new cosmic door. From using convolutional neural networks to automatically identify gravitational lenses, to employing generative adversarial networks to reconstruct the large-scale structure of the universe; from accurately estimating galaxy redshifts based on machine learning, to real-time classification of transient sources in time-domain astronomy through deep learning models--artificial intelligence has gradually transformed from an "auxiliary tool" in astrophysical research into a "core engine." It not only dramatically improves the efficiency of data processing but also helps us discover novel physical laws and reshapes the way we perceive the cosmos. Through this conference, we aim to bring together top-tier expertise from around the world to explore the wide-ranging applications of artificial intelligence in astrophysical research and to promote deep interdisciplinary integration.

Related Topics

Topics of interest include, but are not limited to:

- AI-driven large-scale observational data processing and analysis methods: applications in multi-wavelength, multi-messenger facilities
- Applications of AI in time-domain astronomy: autonomous search and identification of various transient sources
- Intelligent analysis of astronomical spectra and images: deep learning-based parameter measurement, classification, and anomaly detection
- AI for astrophysics theory: accelerating numerical simulations, constructing models, and testing theories
- Applications of large language models in astronomical research: scientific literature mining, automated observation and programming

Publication



Accepted papers will be published in PRAI 2026 Conference Proceedings, and submitted for inclusion into **IEEE Xplore** and indexed by **EI Compendex & Scopus**.

Submission Way

Submit Online: <https://www.easychair.org/conferences/?conf=prai2026>
(Please choose Special Session 9)

Paper Templates: Latex: <https://www.prai.net/ieee-conference-latex-template.zip>

Word: <https://www.prai.net/instruct8.5x11x2.doc>

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For Submission Question Please Contact: praiconf@foxmail.com

Wechat ID: iconf-ras (Send: PRAI 2026)

Important Date

Final Submission Deadline	July 05, 2026
Final Notification Date	July 20, 2026
Final Registration Deadline	July 25, 2026

* The review period for submissions is typically one month.

SESSION CHAIRS



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