ICPRv 2027 Short Paper: Replace with Your Paper Title

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Abstract. Write a self-contained abstract summarizing the research problem, original contribution, proposed approach, and key findings. The Springer LNCS sample recommends an abstract of 150–250 words. Remove all template instructions before submission. Do not use special characters, references, and line breaks in the abstract.

Keywords: Pattern recognition · First keyword · Second keyword

1 ICPRv 2027 Short Paper Instructions (Delete Before Submission)

1.1 What Is a Short Paper?

Short Papers present concise, focused, and complete original contributions in pattern recognition or related fields. They have a deliberately narrower scope than Long Papers, but are held to the same standards of originality, scientific quality, and technical rigor. A Short Paper is *not* an incomplete or preliminary version of a Long Paper: it should state a clear research question, situate the contribution relative to relevant prior work, and provide evidence appropriate to its claims within the shorter format.

Suitable contributions include focused methodological advances, novel applications, benchmarks and datasets, empirical analyses, reproducibility studies, negative results, and emerging research directions. ICPRv 2027 particularly welcomes *Blue Sky Papers* introducing well-motivated, technically sound, forward-looking ideas; *Application Papers* showing innovative uses of pattern recognition with meaningful domain insights; and *Resource Papers* describing useful datasets, software, benchmarks, annotation or evaluation protocols, or reproducibility resources. For Blue Sky Papers, the extent of experimental evidence may differ from that expected of a comprehensive method paper, but claims must still be carefully qualified and supported appropriately. The paper should discuss significance, limitations, and the implications of the contribution.

1.2 Page Limits and Submission Format

The Short Paper limit is **8 pages in Springer LNCS format, excluding references**. All title and abstract material, sections, figures, tables, equations, and other main-paper content count toward the limit. The references may extend beyond the 8 pages. Every submission must also include **exactly two additional final pages** with the mandatory six-question self-review, after the reference list; it is excluded from the 8-page limit. Submit a single anonymized PDF (maximum 50 MB) through CMT. Use this `llncs` class and do not alter the prescribed margins, fonts, spacing, or page geometry. The layout is single-column.

1.3 How to Use the Examples in This File

This file retains typical Springer LNCS demonstrations: section and subsection headings, run-in headings, equations, figures, tables, theorems, footnotes, citations, references, and declarations. Replace all sample text, figures, and bibliography entries with your own content. **Delete this entire instruction section and the policy section that follows**; the scientific paper should begin with your introduction. **Retain the two required self-review pages at the end of the PDF.**

2 ICPRv 2027 Submission Policies (Delete Before Submission)

2.1 Double-Blind Review and Author Information

The review is double-blind. Remove authors' names, affiliations, ORCIDs, acknowledgments, funding sources, identifying links and PDF metadata and any other clues to authorship from the submitted manuscript and supplementary files. If you have relevant prior work, do not omit references to it, and do not "blind" the references, so that the relevant literature can be fully checked, but please reference these papers in the third person (e.g. "Smith et al. introduced the ABC approach [13].") without revealing these are your past work. Restore identifying information and any required credits or declarations only in the accepted camera-ready version, according to the proceedings instructions.

2.2 Originality, Prior Publication, and Research Integrity

Submissions must be original, appropriately cite prior work, and must not be previously published or simultaneously submitted in substantially similar form to a peer-reviewed venue. Non-peer-reviewed preprints are allowed under the conference policy, while double-blind rules still apply. Plagiarism, self-plagiarism, and hidden prompts or instructions intended to manipulate reviewers or automated systems are prohibited.

2.3 Submission Materials, Links, and Reproducibility

The manuscript must be self-contained. Optional supplementary material can be submitted as one PDF, RAR, or ZIP file (up to 250 MB), but reviewers need not inspect it. Do not use supplements or external links to circumvent page limits. Anonymous code repositories are permitted when they preserve review anonymity. Document datasets, protocols, methods, and evaluation clearly. Research involving personal data or human subjects must comply with applicable ethical and legal requirements.

2.4 LLM Use and the Mandatory Self-Review

Authors are responsible for all research and manuscript content. Disclose LLM or other AI use that contributes to research methodology or scientific results, and declare LLM-generated manuscript sections in the final two-page self-review. The last two pages must answer all six questions, including the LLM-use question, and must remain anonymous. Do not add material after this page.

2.5 Registration, Conflicts, and Full Policies

Register the complete author list in order by the paper-registration deadline (one week before submission); consult the website for the strict author-change rules. All authors need CMT profiles and must accurately disclose conflicts of interest. Authors may be invited to review. If the paper is accepted, at least one author must register and present it. The *authoritative* policies, deadlines, and updates are at https://www.icpr2027.com/web/instructions.

3 Introduction

Introduce the research problem, explain why it matters, and state your contributions. This example also demonstrates a footnote[1] and a reference to Section 4. Cite papers with `\cite`, for example a journal article [1] and an LNCS chapter [2].

3.1 Example Subsection and Paragraph Formatting

The first paragraph under a section or subsection is not indented.

Subsequent paragraphs are indented automatically. Do not adjust indentation, line spacing, or the overall LNCS layout manually.

Third-Level Heading. Only sections and subsections are numbered. Lower-level headings use unnumbered run-in styles.

Fourth-Level Heading. Use no more than four heading levels. Table 1 demonstrates the standard LNCS hierarchy.

Table 1. LNCS heading levels (caption above the table).

Level	Example style
Title	14-point bold, centered
Section	12-point bold, numbered
Subsection	10-point bold, numbered
Subsubsection	10-point bold, run-in
Paragraph	10-point italic, run-in

4 Method and Mathematical Notation

Use LaTeX math rather than embedded images of equations. A numbered equation is centered and can be referenced, as in Eq. (1):

$$\mathcal{L}(\theta) = \frac{1}{N} \sum_{i=1}^{N} \ell(f_\theta(x_i), y_i). \tag{1}$$

[1] A sample footnote demonstrating the standard LNCS footnote style.

Define every mathematical symbol and provide enough detail for scientific evaluation and reproducibility.

4.1 Theorems and Proofs

The LNCS class provides theorem-like environments, including `theorem`, `definition`, `lemma`, and `proposition`.

Theorem 1. *This is a sample theorem statement. Replace it with an actual formal result.*

Proof. This is a sample proof environment illustrating the standard formatting.

5 Experiments, Figures, and Tables

Explain the datasets, splits, evaluation protocol, metrics, baselines, and uncertainty estimates. Insert figures with `\includegraphics` using `graphicx`. For example, replace the box in Fig. 1 with `\includegraphics[width=\textwidth]{your-figure.pdf}`. Use vector graphics for plots and line art whenever possible.

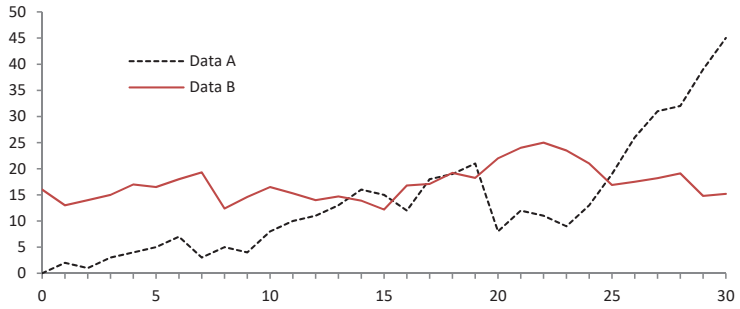


Fig. 1. A figure caption appears below the illustration.

Tables should be legible and use captions above the tabular material, like Table 2.

Table 2. Example comparison table. Replace values with real results.

Method	Accuracy (%)	Runtime (ms)
Baseline	82.1	12.4
Proposed	85.3	13.1

6 Discussion and Limitations

Relate your findings to the closest prior literature, describe the principal limitations and failure cases, and discuss their implications.

7 Conclusion

Summarize the scientific contribution and the evidence supporting it.

References

1. Author, F.: Article title. Journal **2**(5), 99–110 (2016)
2. Author, F., Author, S.: Title of a proceedings paper. In: Editor, F., Editor, S. (eds.) CONFERENCE 2016. Lecture Notes in Computer Science, vol. 9999, pp. 1–13. Springer, Heidelberg (2016)

Mandatory Paper Self-Review

Answer all six questions concisely and anonymously. This mandatory section must be the final two pages (questions 1-5 on one page, question 6 on the second page) of the submitted PDF, after the references; it does not count toward the Long Paper's 15-page limit. You can remove this italicized instruction text.

1. What is the main scientific contribution of the paper?
[State the principal original scientific contribution or finding.]

2. How does it differ from the closest prior work?
[Identify the closest work and specify the substantive difference.]

3. What evidence supports the principal claims?
[Summarize the key experimental, analytical, or theoretical evidence.]

4. What are the main limitations of the work?
[Describe assumptions, weaknesses, and important failure cases.]

5. Why is the new result important?
[Explain the scientific or practical significance of the result.]

6. LLM-usage:
(i) List all the ways LLMs (if any) were used (such as research design, data processing, analysis, paper writing, LLM as research object, LLM as evaluator, studying human interactions with LLM chatbots). Language-only editing (e.g. rephrasing, grammar fixing) need not be disclosed under the conference policy.
(ii) LLM model name, provider, model size, version id, date of access. Say "GPT-4o-mini-2024-12-17 (OpenAI)" rather than "GPT-4".
(iii) Customizations (if any), such as fine-tuning, RAG, prompt optimization, agentic workflows, post-training refinements.
(iv) Human validation of LLM outputs. Describe how human examiners validated the model's outputs. How many examiners were involved, how were their differing answers reconciled? Were all LLM outputs examined, or just a sample, or only for specific cases? Explain whether examiners' feedback was used purely for validation or also to refine prompts, retrain the LLM, etc.
(v) For reproducibility, will you share your LLM prompts, conversation transcripts, or code? If so, provide the link/DOI. Make sure to keep these anonymous.