

Author Guidelines

Journal of Algebra, Logic and Cryptology (JALC)

Version 1.0

2026

1 Scope

The Journal of Algebra, Logic and Cryptology publishes original research articles in algebra, mathematical logic, cryptology, coding theory, computational algebra, discrete mathematics, and related areas. Papers should contain clear mathematical statements, reliable proofs, and sufficient context for specialists in the relevant field.

2 Language

Manuscripts must be written in clear academic English. Authors should check grammar, terminology, notation, and references before submission. The journal does not require a special LaTeX dialect; ordinary mathematical LaTeX is expected.

3 Article structure

A typical article contains the following elements: title, authors, affiliations, e-mail addresses, abstract, keywords, Mathematics Subject Classification, introduction, main results, proofs, examples or applications when appropriate, acknowledgements or funding information, and bibliography.

4 Title

The title should be informative, concise, and mathematically precise. Avoid overly broad titles and unnecessary abbreviations.

5 Authors

Use the template commands

```
\author[1]{Ivan Ivanov}  
\author[2]{John Smith}
```

The optional number indicates the affiliation. Multiple authors and shared affiliations are supported.

6 Affiliations

Use

```
\affiliation[1]{Department of Mathematics, University Name, Country}
```

Affiliations should include department or institute, university or organization, and country. Postal addresses may be included when necessary.

7 E-mail addresses

Use one `\email{}` command for each author. The corresponding author should also be indicated with `\correspondingauthor{}`.

8 Abstract

The abstract should briefly state the problem, the main method or idea, and the principal result. It should normally be between 100 and 250 words and should not contain unexplained notation or bibliographic references unless essential.

9 Keywords

Use

```
\keywords{finite rings; Galois action; linear codes}
```

Provide 3 to 8 keywords. Keywords should help readers and indexing services identify the subject of the paper.

10 MSC

Use

```
\MSC{Primary 11T71; Secondary 94B05, 13M05}
```

The 2020 Mathematics Subject Classification should be used unless the Editorial Office announces a newer version.

11 Mathematics

Use standard LaTeX mathematical environments such as `equation`, `align`, `gather`, and `multline`. Number only equations that are cited. Define notation before using it and keep notation consistent throughout the paper.

12 Theorems

The class does not define theorem environments. Authors should define their own theorem environments in the marked author definitions section of `manuscript.tex`. For example:

```
\theoremstyle{jalcplain}
\newtheorem{theorem}{Theorem}[section]
\newtheorem{lemma}[theorem]{Lemma}
```

The class provides theorem formatting styles only. This avoids conflicts with existing mathematical papers.

13 Figures

All figure files must be placed inside the **figures/** directory. The class automatically searches this directory, so authors may write

```
\includegraphics{figure1}
```

Supported formats depend on the LaTeX engine. For pdfLaTeX, use PDF, PNG, or JPG figures. Figures should be readable in black and white and should have concise captions.

14 Tables

Tables should be created with standard LaTeX **tabular** environments. The template loads **booktabs**; authors may use `\toprule`, `\midrule`, and `\bottomrule` for professional tables.

15 Bibliography

The journal supports two bibliography methods. Authors should use exactly one method in the final submitted manuscript.

15.1 BibTeX

The BibTeX database must be named **references.bib**. In the manuscript use

```
\bibliography{references}
```

The class automatically applies the plain bibliography style. The example **references.bib** file contains entries for journal articles, books, edited books, chapters, conference papers, proceedings, theses, technical reports, arXiv papers, software, datasets, websites, standards, manuals, DOI, ISBN, ISSN, URL, and access date fields.

15.2 Manual bibliography in APA style

Authors may also use the standard **thebibliography** environment. Manual references should follow APA style as closely as possible. The following examples illustrate the recommended format.

Journal article.

```
\bibitem{Shannon1949}
Shannon, C. E. (1949). Communication theory of secrecy systems.
\textit{Bell System Technical Journal}, 28(4), 656--715.
\url{https://doi.org/10.1002/j.1538-7305.1949.tb00928.x}
```

Book.

`\bibitem{Menezes1996}`

Menezes, A. J., van Oorschot, P. C., \& Vanstone, S. A. (1996).
`\textit{Handbook of applied cryptography}`. CRC Press.

Conference paper.

`\bibitem{Daemen1999}`

Daemen, J., \& Rijmen, V. (1999). AES proposal: Rijndael.
In `\textit{Proceedings of the first AES candidate conference}`
(pp. 343--348). National Institute of Standards and Technology.

PhD thesis.

`\bibitem{Smith2023}`

Smith, J. A. (2023). `\textit{Boolean functions with high algebraic immunity}`
(Doctoral dissertation, University of Cambridge, United Kingdom).

Master's thesis.

`\bibitem{Ivanov2022}`

Ivanov, P. (2022). `\textit{Construction of lightweight S-boxes}`
(Master's thesis, Al-Farabi Kazakh National University, Kazakhstan).

arXiv preprint.

`\bibitem{Goodfellow2014}`

Goodfellow, I., Pouget-Abadie, J., Mirza, M., et al. (2014).
Generative adversarial nets. arXiv:1406.2661.
`\url{https://arxiv.org/abs/1406.2661}`

Technical report or standard.

`\bibitem{NIST2001}`

National Institute of Standards and Technology. (2001).
`\textit{Advanced Encryption Standard (AES)}`. FIPS PUB 197.
U.S. Department of Commerce.

Software.

`\bibitem{SageMath}`

The Sage Developers. (2024). `\textit{SageMath}` (Version 10.4)
[Computer software]. `\url{https://www.sagemath.org}`

Dataset.

`\bibitem{UCI}`

Dua, D., \& Graff, C. (2019). `\textit{UCI Machine Learning Repository}`
[Dataset]. University of California, Irvine. `\url{https://archive.ics.uci.edu}`

Website.

```
\bibitem{NISTWebsite}
National Institute of Standards and Technology. (2025).
Cryptographic standards and guidelines. Retrieved January 15, 2026,
from \url{https://www.nist.gov}
```

16 Author definitions

All personal macros should be placed in the clearly marked block

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%% Author definitions
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

This includes `\newtheorem`, `\newcommand`, `\renewcommand`, `\DeclareMathOperator`, and `\def`. Placing definitions in one location helps the Editorial Office check compatibility without changing the mathematics of the paper.

17 Do not force authors to change existing papers

The template is designed to require as few modifications as possible. Existing mathematical papers should usually require only: changing the document class to `alcjournal`; filling in title information; and optionally moving personal definitions into the designated author definitions section. The template must never require authors to rename figures, rewrite theorem environments, or rewrite mathematical notation unless absolutely necessary.

18 Compilation

The preferred compilation engine is pdfLaTeX. XeLaTeX and LuaLaTeX are accepted when required, for example for Unicode text, multilingual manuscripts, or system fonts. Before submission, authors should compile the manuscript and check that there are no unresolved references, missing figures, or bibliography errors.

19 Submission

Authors submit a ZIP archive. The archive name should have the form

`CorrespondingAuthor_ShortTitle.zip`

Examples:

```
Ivanov_GaloisRings.zip
Smith_LinearCodes.zip
Petrov_ModalLogic.zip
```

If the corresponding author submits several papers, the archive names must be different, for example `Ivanov_GaloisRings.zip`, `Ivanov_CodingTheory.zip`, and `Ivanov_FiniteFields.zip`.

20 Template package

The journal distributes the author template as

```
ALC_Journal_Template/  
|-- alcjournal.cls  
|-- manuscript.tex  
|-- references.bib  
|-- Author_Guidelines.pdf  
'-- figures/  
    |-- figure1.pdf  
    |-- figure2.png  
'-- ...
```

The file `Author_Guidelines.pdf` is provided only for reference in the template package. Authors should not include it in the submission archive.

21 Files required for submission

The submitted archive must contain

```
Ivanov_GaloisRings.zip  
|-- alcjournal.cls  
|-- manuscript.tex  
|-- manuscript.pdf  
|-- references.bib  
'-- figures/  
    |-- figure1.pdf  
    |-- figure2.png  
'-- ...
```

The class file must always be named `alcjournal.cls`. The main manuscript file must always be named `manuscript.tex`. The compiled PDF must always be named `manuscript.pdf`. The BibTeX database, when BibTeX is used, must always be named `references.bib`. All figures must be placed inside `figures/`. The submitted PDF file must be generated from the same LaTeX sources included in the submission archive.

Authors should not include `Author_Guidelines.pdf`, auxiliary LaTeX files such as `.aux`, `.log`, `.out`, `.toc`, `.bbl`, `.blg`, `.synctex.gz`, temporary editor files, or cache directories in the submission archive.

22 Naming convention and editorial identifiers

Only the submission ZIP archive is renamed by the author. The files inside the archive must keep the required names. The Editorial Office assigns its own internal manuscript identifier after submission, for example JALC-2026-001, JALC-2026-002, or JALC-2026-003. After submission the Editorial Office may rename the working directory to JALC-2026-001/ without changing any file names inside the directory.

23 Before submission

Before submitting, authors should verify that the manuscript compiles without errors, the submitted PDF matches the LaTeX sources, all figures are included, all references are resolved, and no missing fonts or images are reported.