The title of the paper, which can also be somewhat longer and cover more than two lines

Subtitle of the article

First name 1 last name 1 1 1 1, first name 2 last name 2, and other authors using the same notation

Abstract: This is a brief overview of the paper, which should be 70 to 150 words long and include the most relevant aspects. The font is Times New Roman in font size 9. The paragraph is justified and always begins with the word 'Abstract:', also in font size 9, Times New Roman and bold. The paragraph should be preceded by spacing of 30 pt and followed by spacing of 6 pt, and should use single line spacing. The whole width of the page must be used.

Keywords: These are the main words which best describe the topic of the paper. The formatting is the same as for the abstract, except with spacing of 6 pt rather than 30 pt before the paragraph. The keywords are separated by commas, there is no period at the end. Example: Artificial Intelligence, Internet of Things, Quantum Computing

1 Introduction

These guidelines (as of January 2025) must be followed when preparing reproductionready manuscripts for GI's 'LNI' editions. They are designed to ensure that the publication series has a good, consistent appearance. This document should further be used as a template as it contains the required formatting. Please make sure that the formatting is adopted. It also contains information on the barrier-free preparation of the document.

The LNI publication series includes conference proceedings, Dagstuhl seminar series, and dissertations awarded the GI dissertation prize. Any formatting differences between these are explicitly indicated below.

¹ Institution/university, department, address, town/city, postcode, emailaddress@author1, bttps://orcid.org/0000-0000-0000-0000

² Institution/university, department, address, town/city, postcode, emailaddress@author2

2 General information on the barrier-free preparation of the document

2.1 Language

Set the appropriate language for words, word groups, paragraphs or sections that differ from the document language (such as English technical terms in a German text) so that the screen reader also changes the intonation (path: Check > Language).

2.2 Output as barrier-free PDF

To save the document as a PDF (under the path: File > Save as > File type: PDF (*.pdf)), "Optimal for electronic distribution and accessibility" must be clicked.

3 General formatting

Type area: the volumes use the format $23.5 \times 15.5 \text{ cm}$ with a type area of $19.2 \times 12.6 \text{ cm}$; the full width and height of this should be fully used as far as the document allows.

It should generally be noted that changes to line and paragraph spacing will not be tolerated.

3.1 Title

The title font is Times New Roman, bold and in font size 14 pt. The text is left-justified. There is spacing of 0 pt before the title and it is followed by spacing of 23 pt. The title should not exceed four lines in length.

Please also set a short and concise document title in the file properties you select a title with a colon, the part of the sentence after the colon is the subtitle. Neither the title nor the subtitle ends with a period. Example title: Use of artificial intelligence in electronic music

Subtitles can also be inserted if desired. In this case, the spacing after the title is reduced to 16 pt. The subtitle has a font size of 10 pt bold, preceded by a space of 0 pt and followed by 23 pt. Example subtitle: Chances and risks for the ears

3.2 Author information

The font of the author and author information is Times New Roman, the font size is 10 pt. The alignment is left-aligned. The text should be preceded by 0 pt spacing and followed by 0 pt spacing.

All authors must be listed by name, in the order of first name(s) last name. If there is more than one author, the last name should be joined with "..., and".

In the footnote, the contact information of the author(s) should be listed according to the template. The font is Times New Roman, the font size is 8 pt and the spacing is 0 pt.

Optional: Integration of the ORCID in the author information. For this purpose, the ORCID logo is placed after the names of the authors for whom an ORCID is known. The ORCID of the respective author, including a link, is placed in the footer after the address. The ORCID logo can also be linked to the author's ORCID URL after the author's name.

4 Headings

Section headings should be written in the font Times New Roman, font size 12 and bold. The heading is preceded by spacing of 24 pt and followed by spacing of 12 pt.

The numbering starts at 1 (without a trailing period). If the automatic numbering is adopted by Word, a hanging special indent of 0.76 pt must be set. If the numbering is done manually, insert a space between the number and the heading text using the tabulator and then set a hanging special indent of 0.76 pt.

4.1 Sub-headlines

Sub-headlines should also use the font Times New Roman, bold and in font size 10. The heading is preceded by spacing of 20 pt and followed by spacing of 10 pt.

The numbering begins at 1 (see this document for an example). If using automatic numbering in Word, a special hanging indent of 1.02 pt should be applied. If the numbering is inserted manually, a space should be added between the two numbers and the subtitle text using the tab key and thereafter a special hanging indent of 1.02 pt should be applied.

Only one level of sub-headlines is permitted beneath headlines (e.g. 1.1 or 1.2; <u>not</u> 1.1.1 or 1.1.2).

4.2 Body text

The font of the body text is Times New Roman in font size 10. The paragraph is formatted in justified text and the line spacing is single. The spacing before the paragraph should be 0 pt and after the paragraph 8 pt. No blank lines are to be inserted.

If a new paragraph is started, there is no indentation in the first line, but the text starts at the very beginning of the line.

Hyphenation must be used, but limited to a maximum of 3 consecutive characters.

Only special characters that can be displayed in .pdf or .eps files should be used.

4.3 Enumerations and lists

- Bulleted lists have the same font and font size as the body text and are justified. Multi-line bullet points start at the same point as the first line. For bulleted lists, please use the
bullet level 1 + block> style. If this style is not used: Paragraph setting, special indent Hanging by 0.88 cm and insert a new tab stop position at 0.88 cm and delete any others.
- They are started in the first level with a (center point). A distance of 6 pt must be set after the text.
 - In the second level, bulleted lists begin with a (dash). A spacing of 6 pt must be set after the text. If this style sheet is not used: Paragraph setting, left 0.88 cm, special indent hanging by 0.88 cm and insert a new tab stop position at 1.76 cm and delete any others.
 - Bullet lists should generally not have more than two levels.

If numbered lists are used, the same format specifications apply as for unnumbered lists:

- 1. Numbered lists use the same formatting as unnumbered lists.
- 2. The alignment is left, the distance from the margin is 0 cm, the tab stop is to be set at 0.88 cm and the indent is also to be set to 0.88 cm.
 - The formatting of the second level is equivalent to the second level of unnumbered lists.
 - b) Numbered lists should also generally not have more than two levels.

4.4 Abbreviations

Abbreviations should be avoided. If this is not possible, abbreviations should be explained the first time they appear in the text. Otherwise, only abbreviations listed in the Duden index should be used.

4.5 Footnotes

Footnotes can be inserted in the body text. They should be displayed at the end of the page and should be separated from the text by a 5 cm line. Make sure that there is no space

after the separator line between the separator line and the footnote. No indentation is to be set.

In proceedings and seminar volumes, the numbering is consecutive within an article (i.e. starting at 1 in the author details on the first page of the article), in monographs and dissertations it is consecutive throughout the entire work.

5 Header & pagination

Please <u>do not use headers or page numbers</u> in Word documents. These are generated by the publisher.

6 Figures

To prevent graphics from moving in Word, the page break type "with text in line" is used - a new paragraph must be started for the graphic. The graphic must be centered.

Below the graphics is also centered, Times New Roman font, font size 9 pt, not bold, the indicator word "Fig.", the consecutive number, and the description. In proceedings and seminar proceedings the number is consecutive within an article, in monographs and dissertations consecutive within a chapter preceded by a chapter number (e.g.: Fig. 4.17: Description).

A short, precise alternative text should also be provided for figures (right-click on the graphic; for Mac: ctrl + click > Show alt text).

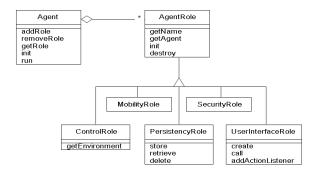


Fig. 1: Description of figure

If illustrations have been scanned, the illustration numbers and captions must be "erased" if necessary, so that they have a uniform appearance and follow the numbering scheme. In the case of quoted illustrations, the description of the illustration must be accompanied by

a complete reference to the source; in addition, permission to reprint must be obtained from the respective publisher and submitted to the editors.

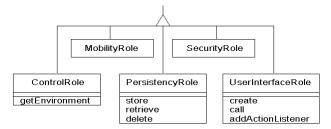


Fig. 2: Description of figure [AB00]

When reducing the size of images, make sure that letters and numbers are at least 1 mm high. If scanned images are used, it is essential to ensure that alphanumeric characters, lines and shading are recognizable in black and white.

7 Tables

In order to make tables easily perceptible for blind users, care should be taken to ensure that they are simply structured and have a header. The respective column headings should be named meaningfully, clearly and without abbreviations.

Please do not use so-called "layout tables", i.e. tables that are only used for the graphical positioning of content. These should be avoided at all costs.

An alternative text should also be set for tables.

Tables must be centred vertically and may have a maximum width of the standard text (table properties: preferred width 12.6 cm). The table grid may have a maximum pixel width of 1 pt.

Heading levels	Example	Font size and type
Title (left-justified)	Title	14 pt, bold
Heading 1	1 Introduction	12 pt, bold
Heading 2	2.1 Title	10 pt, bold

Tab. 1: Description of table

The text contained should resemble body text (Times New Roman, size 10 pt) but should not have any spacing (0 pt) after the individual lines. The text should be left-aligned and vertically centered within the tables.

Below the tables, the signal word "Tab.", the description and the consecutive number

should also be centered, Times New Roman font, font size 9 pt, not bold. In proceedings and seminar proceedings consecutively within an article, in monographs and dissertations consecutively within a chapter preceded by a chapter number (e.g.: Tab. 4.17: Description).

Scanned tables are to be treated like graphics.

8 Program code

Program code must be indented by 0.5 cm from the left margin. A single space must be set within a program text, then a space of 8 pt as after a normal paragraph. A typewriter font should be used (e.g. Courier,...), font size remains 10 pt. as for normal text.

```
public class Hello {
    public static void main (String[] args) {
        System.out.println("Hello World!");
    }
}
```

If the program code has been taken from a book or other written work, the source must be indicated in the text and bibliography.

9 Formulas and equations

Equations must be indented by 0.5 cm from the left-hand margin. If equations are numbered consecutively, this numbering must be indicated in brackets on the right-hand edge of the type area, flush right. Layout tables should be avoided and the number should be aligned using a right-aligned tab. A spacing of 6 pt must be set before and after the equations.

$$X^2 = (a+b)^2$$
 (1)

10 References & rules for creating a bibliography

The bibliography is sorted alphanumerically according to the references and does not contain any subdivisions.

The desired format (especially for citations in the text) corresponds to an adaptation of "DIN 1505-2 (author-date, German)" with short references for citations in the text. You will normally find the style in citation style libraries directly under the name "LNI" or

under "Balzert, Schröder, Schäfer" (named after the book Wissenschaftliches Arbeiten by these authors, which can also be found in the GI Digital Library). See for example:

- https://help.citavi.com/knowledge-base/article/lni
- https://github.com/citation-style-language/styles/blob/master/din-1505-2-alphanumeric.csl
- https://github.com/gi-ev/biblatex-lni

10.1 Formatting

The font is Times New Roman, the font size is 9 pt and the paragraph is to be formatted in justified text. A space of 6 pt must be set after each paragraph. The special indent is hanging by 1.5 cm and the tab stop position must be set to 1.5 cm.

10.2 Reference in continuous text

One author: e.g. [Ez10], where E (upper case) is the initial letter of the author's last name, z is the second letter of the last name, and 10 represents the year of publication 2010.

Two or three authors: the initial letters of the authors' names followed by the year of publication, e.g. [AB00], [ABC01].

More than three authors: only the first author is listed using the format for a single author, e.g. [Az09] or [Wa14].

An author or multiple authors with multiple publications in the same year: add lower case letters beginning with a after the abbreviation, e.g.: [Wa14a], [Wa14b].

For works without authors the first two letters of the title are used, e.g.: [An14] for 'Anteil an Frauen...' or [GI14] for 'GI, Gesellschaft für Informatik e.V.'

10.3 Layout

The various layout options for references are listed below.

Information that is not absolutely necessary or should only be included if it is available is placed in angle brackets. If several locations are mentioned, only one should be listed and the others should be abbreviated with the addition "et al.".

Monographs, books / one author

Last name, first name: Title<. Subtitle>, <edition, ><publisher, ><location <i.a.>, >year.

Monographs, books / multiple authors

Last name, first name; last name, first name; last name, first name: Title<. Subtitle>, <edition, ><publisher, ><location <i.a.>, >year.

Journals

First name, last name: Title. Name of journal and number/year, pages, year.

Proceedings

First name, last name: Title. In (ed.): Volume title. <Publisher, ><location <i.a.>, >pages, year.

Websites

Page name, link, date accessed.

The next section shows a sample bibliography for books with one author [Ez10] and two authors [AB00], a paper in conference proceedings with three authors [ABC01], a paper in an LNI volume with more than three authors [Az09], two volumes by the same four authors published in the same year [Wa14a] and [Wa14b], a journal [Gl06], a website [GI14] and other literature without specific authors [An14].

Acknowledgements (optional)

At this point in the document, it is possible to thank persons or organizations that have made the contribution possible.

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[Wa14a] Wasser, K. et al.: Essenzen der Informatik. Verlag Formvoll, 2014.

[Wa14b] Wasser, K. et al.: Ganz neue Essenzen der Informatik im selben Jahr. Format-Verlag, 2014

Appendix (optional)

An appendix can be placed here if there are tables, texts and other documents that are to be added to the article. If there are several appendices, these should be numbered: Appendix 1, Appendix 2, etc. There must be a page break between the bibliography and the appendix.

(Last revised January 2025)