

# Example Article for SIGMA

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**Abstract.** This is an example article for the refereed online open access journal “Symmetry, Integrability and Geometry: Methods and Applications”.

*Key words:* ???; ???; ???; ???

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## 1 Introduction

*Symmetry, Integrability and Geometry: Methods and Applications* (SIGMA)<sup>1</sup> is a refereed purely electronic arXiv overlay journal.

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After accepting the article for publication in SIGMA authors shall prepare the paper in the L<sup>A</sup>T<sub>E</sub>X2<sub>ε</sub> format, using the style file **sigma.cls**, according to the requirements listed below (this is **mandatory**). The style file **sigma.cls** was created on the basis of the standard style article. The font size is 11pt. The following style packages are used: **amsthm**, **amsmath**, **latexsym**, **amssymb**, **epsfig**, **graphics**. Authors can use for preparation of their articles other standard style packages.

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<sup>1</sup>SIGMA is a non-profit project operated by scientists from Department of Mathematical Physics, Institute of Mathematics of National Academy of Sciences of Ukraine.

We kindly ask you do not use abbreviations for standard L<sup>A</sup>T<sub>E</sub>X commands!

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After preparation of the paper for publishing we will send the author(s) the pdf-file of the paper for final checking that should be completed in a week.

## 2 Displayed mathematics

The equations presented in separate lines are to be given by means of separators `equation` or their versions for numbered equations and `displaymath` of their versions for non-numbered equations. It is not allowed to use `$$ ... $$` as separators as they do not provide left-side justification adopted in SIGMA. *Only equations referred in the paper should be numbered.* Equations should be numbered through all the paper (or by sections). All references to equations are to be organized by means of the labels:

$$(a + b)^2 = a^2 + 2ab + b^2. \tag{2.1}$$

The equation (2.1) is an example of numbered equation, and the following gives an example of a non-numbered equation

$$a^2 - b^2 = (a - b)(a + b).$$

Equations set in multiple rows, as e.g. equations (2.2), (2.3) are to be typeset using separators `gather`, `gather*`, `split`, `aligned` and similar to them

$$\begin{aligned} (a + b) (a^2 - ab + b^2) \\ = a^3 + b^3, \end{aligned} \tag{2.2}$$

$$(a - b) (a^2 + ab + b^2) = a^3 - b^3. \tag{2.3}$$

## 3 Theorem like environments

Environments for theorems, lemmas, corollaries, propositions, definitions, examples, remarks, notes and the like are defined in the `sigma.cls`.

**Theorem 3.1.** *This is an example of theorem.*

**Proof.** The text of a proof of the Theorem 3.1. ■

**Theorem.** *This is an example of unnumbered theorem.*

**Lemma 3.2.** *This is an example of lemma.*

**Proof.** Example of particular case proof ends with an equation:

$$a \implies b, \quad b \implies c. \tag{2.3}$$
■

**Corollary 3.3.** *This is an example of corollary.*

**Proposition 3.4.** *This is an example of proposition.*

**Definition 3.5.** This is an example of definition.

**Example 3.6.** This is an example.

**Remark 3.7.** This is an example of remark.

**Note 3.8.** This is an example of note.

## 4 About figures

If a paper contains pictures, then it is necessary to submit together with the paper text the relevant files in the formats **eps**, **pdf**, **jpg**, **bmp**, containing high quality images. Font size of legends at the pictures should not exceed 10pt. Please use the packages **graphics** or **epsfig** for incorporation of pictures.

## 5 About references

The references should be presented according to the examples given [1, 2, 3, 4, 5, 6, 7]; usage of BibTeX is welcome (see example.bib, sigma.bst). Note that the full name of the reference cited should be given together with complete publishing data<sup>2</sup> and it is not desirable to join a few references as single item. Also we would like to ask you to indicate DOI and arXiv numbers for the reference you cited if they are available. The order of references should be determined in the alphabetical order. Every reference given in the bibliography should be cited in the text! All citations of the references are to be organized by means of the labels (e.g., `\cite{Olver1986}`).

## A First appendix

We kindly ask the authors to give all technical details of paper in the form of Appendices.

## Acknowledgements

The text of acknowledgements to funds, colleagues, referees, etc. should be typed at the end of the paper, before references.

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