{MERAA} Mathematics in Education, Research and Applications

Guides for Authors :: Version – January 2018

Research in mathematics and related fields
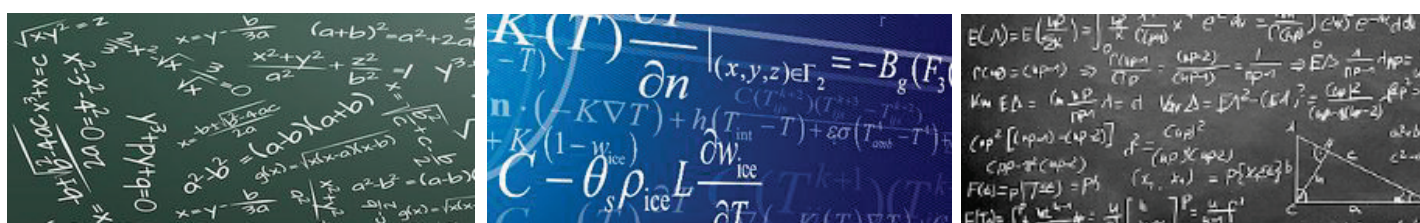
Education in mathematics at all types of schools

Applications of mathematics in teaching, research and practice

Methodology of mathematics

Information technology tools in mathematics

Cross-curricular relations with mathematics

Guides for Authors :: January 2018

1 Page Formatting

2 Text Formatting (see Article Formating :: Help)

1   Page Formatting

Page size: A4

Page orientation: portrait

Margins: 2.5 cm/2.5 cm/2.5 cm/2.5 cm

2   Text Formatting (see Template)

Basic formal structure all paper types: IMRAD.

2.1   Main text, headings, subheadings

<u>Affiliation</u> is not full postal address, indicates affiliation to an institution. Rule for affiliation: name in English in decreasing order (University, Faculty, Department…), country.

<u>Corresponding Author</u>: name without titles, full postal address and valid e-mail is required.

<u>Abstract</u>: factual and concise abstract is required. Whole text is one paragraph. Minimum range 50 (Short C.) or 100 words (Orginal P.), maximum range 150 or 250 words, respectively.

2.1.1 Font

Baseline font: Times New Roman. Default language setting: English (UK).

Each section is formatted as a single column.

For manuscript main text (exclude headings, subheadings, equations, formulas, illustrations and other special parts of text) preparing using a roman (normal) font. <u>Italic, bold, bold italic or underline should not be used for emphasis</u>. Use no more than three levels of subheadings.

2.1.2 Footnotes text

You might use footnotes for detailed comments.

A footnote consists of two parts: the note reference mark and the corresponding note text. Reference marks: traditional number format, not special symbols (for example asterisk).

2.1.3 Units, quantities, symbols

Use SI basic or derived units only (EN ISO 80000-1:2013. Quantities and units - Part 1: General).

Define abbreviations the first time they are used in text. For individual math symbols, Greek letters, and other special characters: insert as a symbols.

<u>In the expression for the value of a quantity</u>, the unit symbol is placed after the numerical value and a space is left (one "hard space" (Ctrl+Shift+Space) between numbers and unit symbols) between the numerical value and the unit symbol.

Symbols representing physical quantities (or variables) are italic, but symbols representing units, or labels, are roman. Sometimes there may seem to be doubt as to whether a symbol represents a quantity or has some other meaning (such as a label): a good general rule is that quantities, or variables, can be given a value, but labels cannot. Vectors, tensors and matrices are usually denoted using a bold-face (heavy) font, but they should still be italic since they are still quantities.

<u>Symbols for mathematical operators are roman</u>. Some symbols are also sometimes used to represent physical quantities: then of course they should be italic, to distinguish them from the corresponding mathematical operator.

> Note
> Character **%** is used in two senses: as a noun that denotes the total number (percentage) and as an adjective (per cent) expressing the relativity. Expressed hundred percent is written with a hard space (Shift+Ctrl+Space) between values and variables (100 %) and conversion to a pro rata share (100 per cent) is written without spaces (100%).

Paper title: TNR, 14, bold

Author(s): TNR, 12, bold

Affiliation: TNR, 11, normal

Abstract: TNR, 10, normal

Keywords: TNR, 10, normal

Main text: TNR, 12, normal

Headings: TNR, 12, bold, capitals

Subheadings: TNR, 12, bold, non-capitals

2.2 Paragraph Styles

Text (paragraph) align: Justify

Line spacing, including bibliographic references: Single (1.0)

Space between paragraphs in main text: 0 points before and 6 points after a paragraph.

Space between lines in headings/subheadings: 12 points, 0 points before and after, too. Single lines between heading and text (line break).

Indentation: None. Hyphens: None.

Ending pages with one-line paragraphs or with only the first line of text of a paragraph continuing on the following page (these are commonly called "orphans") is not acceptable.

Paragraphs ending pages of text must contain at least two lines of text or be moved to the top of the following page.

2.3 Reference Styles

Font size: 10 pt

Indentation: Special – first line by 1.0 cm.

Space between paragraphs: 0 points before and 3 points after a paragraph.

3 Illustrations

Illustrations include tables and figures. The goal for figures is to be assist understanding of the paper. Use the same font as the body text. Full shape of illustration is required (correct: Table, incorrect Tab.; correct: Figure, incorrect: Fig. Example: Figure 1 or Table 1).

Format of citations for all illustration types: See general requirements for citations/references. No reference is required if you have created the data and image yourself.

3.1 Tables

Tables present lists of numbers or text in columns. Do not use tables when you wish to show a trend or a pattern of relationship between sets of values. These are better presented in a figures. Tables should be prepared using a roman font, italic or bold or bold italic should not be used for emphasis.

Tables should each be presented on a portrait (not landscape) orientation. Table caption – each table has a short, one-line title in normal text above the body (please, do not insert caption into table body). Titles should identify the table as briefly as possible. Symbols, abbreviations and notes are defined immediately below the table. Tables are numbered using arabic numerals (also

called hindu-arabic numerals), and they are cited in numerical order in the text. Aligning decimal numbers in cells: on the decimal point/right. Only horizontal lines are allowed; no vertical lines, boxes, or other lines may be used unless they indicate the structure of the data. Do not use shading in the table (columns/rows).

Footnotes (below the table) are used to clarify points in the one, or to convey repetitive information about entries and footnotes may also be used to denote statistical differences among groups.

3.2 Figures

Figures are visual presentations of results, including graphs, diagrams, photos, drawings, schematics, maps, etc. Graphs are inserted in text as images, not as generated objects (from Microsoft Excel). Figures should each be presented on a portrait (not landscape) orientation. Figure caption – each figure has a short, one-line title in normal text below the body (please, do not insert caption into a figure body). Symbols, abbreviations and notes are defined immediately below the figure body, too.

Footnotes (below the figure) are used to clarify points in the one, or to convey repetitive information about entries and footnotes may also be used to denote statistical differences among groups.

Examples:

Table 1   Text, text, text, text, text, text, text (Table caption/title)

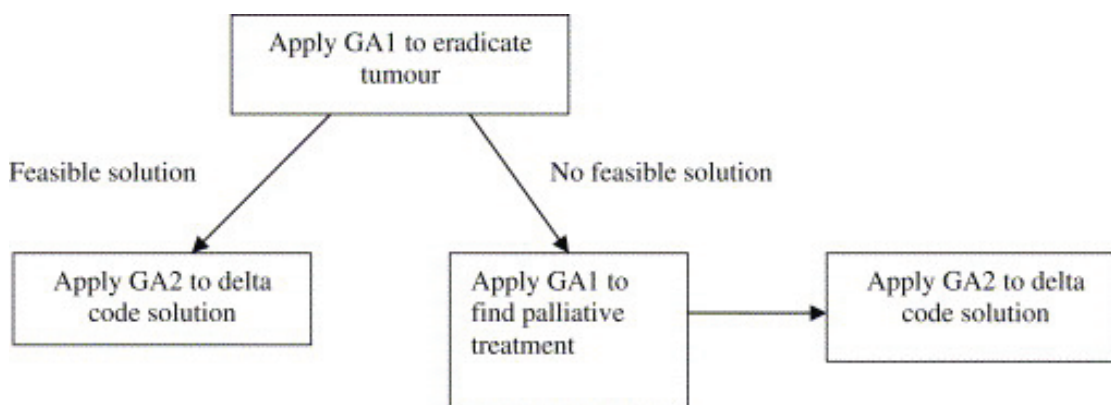| Head	Head	Head
Text	0.154	0.258
Text	1.150	1.140

Figure 1   Optimisation process using two genetic algorithms, GA1 and GA2 (McCall, 2005, p. 218)

4   Equations/formulas/special symbols

Equations, formulas or special symbols do not insert as images! If the desired math is too complex or not available as individual characters, then use Equation Editor. Please number all display equations, consecutively.

Example:

$$B_i^n(t) = \binom{n}{i} . t^i . (1-t)^{n-i}$$

$$B_i^n(t) = \binom{n}{i} . t^i . (1-t)^{n-i}$$

$\cup \ \eta$

Cambria math

5   Citations/References

Citations and references are each numbered as they appear in the text, tables or figure legends. The list of references is arranged alphabetically and then numbered (numbers in square brackets).

Citations in text

Every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text.

Indicate references by number(s) in square brackets in line with the text. Example: "... algebras can also be considered as the analogues of Nazarov's affine Wenzl algebras [25]. This is one of our motivations to introduce these algebras. Another motivation originates from super Schur-Weyl dualities [7, 32]..."

References formatting

Author(s) name(s), journal title/book title, chapter title/article title, year of publication, volume number/book chapter and the pagination must be present. Use of DOI is highly encouraged, DOI must be write as active link (on the Insert tab, click Hyperlink) in form: https://doi.org/10.xxxxx/xxxxx. Missing data will be highlighted at proof stage for the author to correct. All references must be written in English (translated to English) and original language of the referenced publication must be indicated in brackets at the end of text.

   i.   Reference to a print journal:

[1] Rui, H. & Su, Y. (2015) Affine walled Brauer algebras and super Schur-Weyl duality. *Advances in Mathematics*, 285(5), 28-71.

ii.   Reference to an online journal with DOI:

[1] Rui, H. & Su, Y. (2015) Affine walled Brauer algebras and super Schur–Weyl duality. *Advances in Mathematics*, 285(5), 28-71. doi:https://doi.org/10.1016/j.aim.2015.07.018

iii.   Reference to an online journal without DOI:

[1] Rui, H. (2013) Brauer algebras. Advances in Mathematics, 285(5), 28-71. Retrieved 2016-12-21 from http://www.odvancesinmath/2013/rui-1254.html

iv.   Reference to a book:

[1] Strunk W Jr. & White, E.B. (2000). *The Elements of Style*. 4 ed. New York: Longman.

[2] Turaev, V. (1989). *Operator invariants of tangles and R-matrices*. Moscow: Izd. Akad. Nauk SSSR (in Russian).

v.   Reference to a chapter in an edited book:

[1] Mettam, G.R. & Adams, L.B. (2009). How to prepare an electronic version of your article. Jones, B.S. & Smith, R.Z. (eds.). *Introduction to the Electronic Age*. New York: E-Publishing Inc., 281–304.

vi.   Reference to a paper from proceedings/book of papers etc.:

[1] Mettam, G.R. & Adams, L.B. (2009). How to prepare an electronic version of your article. *Electronic Age in Scholarly Communication : Proceedings from International Scholarly Conference in London, 15-17 August 2009*. Coventry: PubHouse, 281–304.

vii.   Reference to an online book with DOI:

[1] Shiraldi, G. R. (2001). *The post-traumatic stress disorder sourcebook: A guide for healing, recovery, and growth [Adobe Digital Edition Version]*. doi:https://doi.org/10.1036/10071393722

viii.   Reference to an online book without DOI:

[1] Shiraldi, G. R. (2001). *The post-traumatic stress disorder sourcebook: A guide for healing, recovery, and growth [Adobe Digital Edition Version]*. Retrieved 2016-12-21 from http://www.stressdisorders.org/10071393722

Note: Journal names should be abbreviated according to the List of Title Word Abbreviations (http://www.issn.org/services/online-services/access-to-the-ltwa/)