SAMPLE DOCUMENT
AND INSTRUCTIONS FOR AUTHORS

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Abstract: Recommended length of the abstract is 10 to 20 lines.

1. Manuscript

Manuscripts have to be submitted electronically in PDF format by using the Open Journal Systems site at http://ojs.nnw.cz. The submitted manuscripts must be written in good English (American or British) and must be 'spell-checked' and 'grammar-checked'. After a manuscript has been accepted by reviewers, we require from our authors to provide us with a manuscript version that is copyedited for English. Without this step the manuscript can not be processed by a layout editor.

The recommended extent of a submitted paper is 10 to maximum 15 single-spaced and single-column A4 pages using 12pt font for both text and mathematics; the text employs italics, rather than underlining and all mathematical symbols are typeset in mathematical mode (no text mode italics, please).

The submission title page must include the title, authors, abstract (the recommended length of the abstract being 10 to 20 lines), and the key words (at least 3). Figures (numbered with Arabic numerals) and tables (numbered with Roman numerals) should be placed within the full text, rather than at the end of the manuscript. All figures and tables must have sufficiently descriptive captions. We use the numeric citation style for references, i.e. the citations in the text are labelled with a number in square brackets.

All authors of the manuscript must include their full names, affiliations, and contact details (full postal address, E-mail) on the cover page of the manuscript. One of the authors has to be identified as the corresponding author.

1.1 Submitting revised manuscript

After each of the review rounds a corrected version of the manuscript in a separate PDF document is to be submitted, explaining comment by comment the response to the reviewers' comments and all changes made in the manuscript.

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1.2 Final submission

When the manuscript has been accepted for publication by reviewers, the corresponding author will be asked to provide us with a manuscript version that is copyedited for English. Without this step the manuscript can not be processed by a layout editor.

After that, the corresponding author will submit source files (including separate PDF or EPS files of all figures) along with the PDF version of the finalized manuscript. The source file(s) (text and tables) is(are) prepared primarily in LaTeX format, we also accept a MS Word file. The latter shall be submitted without any special formatting as we will have to convert it manually into a special NNW LaTeX style.

The final submission contains:

- the final revised manuscript in PDF format without any special formatting,
- the source files and separate PDF or EPS files of all figures (see Section 2 for detailed requirements),
- the filled and signed Copyright form (see Section 6 for detailed requirements); two versions of the Copyright form can be downloaded from http://www.nnw.cz/copyright.html.

2. Figures and tables

Figures must be numbered with Arabic numerals and tables with Roman numerals in the chronological order of their appearance in the text. Each figure and table needs a sufficiently descriptive caption. All illustrations, figures, and tables are placed within the text at the appropriate points, rather than at the end.

Please note that the NNW journal is generally printed in black and white. Therefore all the graphics have to be submitted as black-and-white artwork. But if you wish to incorporate colour figures in the electronic version of your paper (which we do not charge), please submit also colour versions of your illustrations.

An extra charge has to be paid if the author wishes the figures to appear in colour in the print version. Charges for colour pages are specified on the journal website http://ojs.nnw.cz/about/submissions#authorFees.

Please note that

- all figures have to be submitted as separate PDF or EPS (Encapsulated PostScript) files in print quality; this means that every single PDF/EPS must contain a vector drawing, or a bitmap with a resolution of at least 300 dpi, both with a bounding-box corresponding to the actual drawing,
- all figures have to be readable when printed (please note, that the printed text box is 126×200 mm and this amounts to the maximum size of a printed figure including its caption); legends and texts within the figures have to be typeset with at least 9pt font in order to be readable when printed,
- EPS can be easily exported from all major drawing editors (Adobe Illustrator, Adobe Photoshop, Corel Draw, Inkscape, GIMP, . . .) as well as from Matlab, R, pyPlot and other standard data processing packages,

- in general, all graphs and drawings shall be submitted as vector drawings; submitting them as bitmaps will typically result in an illegible print proof and the editor asking back for vector versions,

- figures submitted within Word files cannot be used for publishing purposes due to their inferior quality; this means that they will not be accepted.

2.1 Tables

All tables must be *centered*, typeset in the *same formatting style* throughout the whole document and use the *same font* as the document.

Reusing PDF or even JPEG hard copies of already formatted tables is not allowed. When typesetting the tables, use the *classical "booktabs" style* of tables (with appropriate `\toprule`, `\midrule`, and `\bottomrule` when using LaTeX). No horizontal rules (i.e. `\hrule` in LaTeX) is allowed between table rows, see the documentation of the booktabs package [11].

In order to maintain readability of the paper, the tables *can not span multiple pages*. The maximum allowed table size is 1 A4 page typeset with 12pt font. Do not decrease the font size.

Table captions should appear below the table, see Tabs. I and II.

	t [s]	E_c [%]	MSE	PSNR
experiment 1	12.42	82.3	42.4	12.1
experiment 2	8.561	45.6	24.7	14.8
experiment 3	4.126	78.9	91.8	32.4
experiment 4	10.01	42.3	20.6	9.28

Tab. I *Example table caption. Here, t denotes time, E_c denotes efficiency coefficient,* MSE *denotes mean standard error and* PSNR *denotes peak signal-to-noise ratio. Note that all values are aligned on decimal dot and that values in every column have the same number of significant digits.*

	RMSE [%]			
Data	min	max	avg	σ
Training	0	2.68	0.43	0.49
Test	0	4.90	0.37	0.85

Tab. II *Example of another table caption. Columns* min *and* max *list minimal and maximal* RMSE *values,* avg *is an average value and σ is the standard deviation.*

2.2 Figures

All figures must be in a *good printing quality* (see the above mentioned items within the Section 2), and *centered*. *Mathematics in figures must be typeset in the same*

formatting style as within the text, see Section 4. Again, the caption of the figure always appears below the figure, see Figs. 1 and 2.

Note that when plotting more than a single dataset within a single figure, every dataset should use different colour and/or line type. When plotting discrete data, please employ different colour and markers for different dataset.
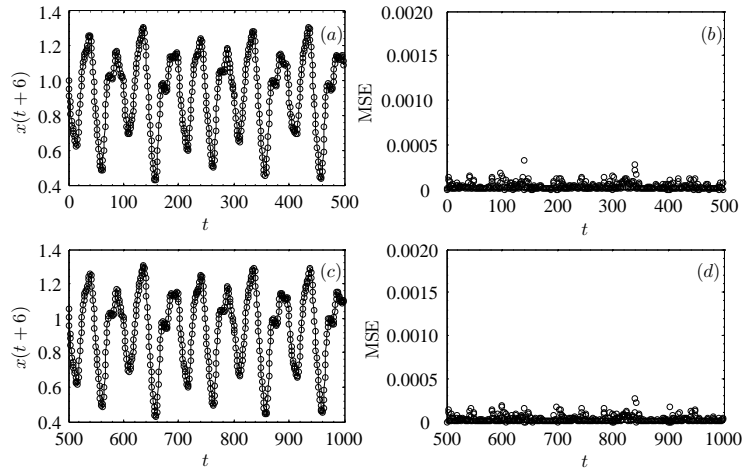

Fig. 1 *Example of figure title: Calculated values (circles) obtained for the Mackey–Glass time series – Case 1 (solid line). (a) Training set for $x(t+6)$; (b)* MSE *for the training set; (c) Prediction set for $x(t+6)$; (d)* MSE *for the prediction set.*
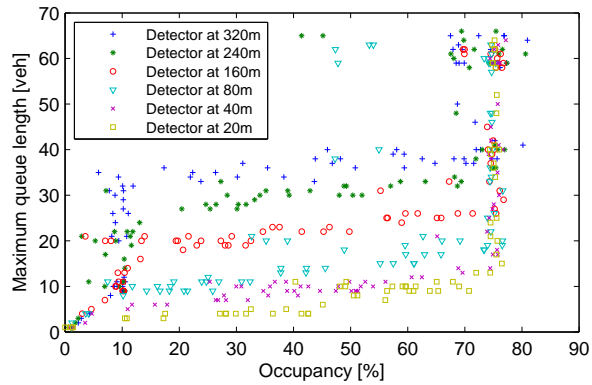

Fig. 2 *Example of another figure caption: Occupancy-queue length dependency for different detector distances from the stop-bar and different effective green lengths for fixed green length ($32\,s$ out of $80\,s$ cycle) and different detector distances.*

3. Algorithms

All algorithms must be typeset as such, see Algorithm 1 for an example. The caption of the algorithm always appears above the algorithm itself.

Algorithm 1 GA algorithm.

   Initialize a population randomly, where each individual is expressed as genes encoded in a chromosome.

  repeat

     Calculate the fitness of each individual.

     Determine whether it is agrees with the optimization criterion.

     if fitness agrees **then**

        Output the best individual and optimal solution.

        return

     else

        Select new individuals based on fitness.

        {The roulette method [6] can be used. This is a choice based on the proportion of individual fitness that determines the possibility of reservations among descendants.}

        Perform crossover and mutation operations to generate new individuals.

        {Generally, the crossover probability is 0.3–0.8, the mutation probability is 0.01–0.20.}

        Get a new generation of the population.

     end if

  until the stopping criterion is met

  Anti-code the results.

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4. Equations

Mathematical equations must be clearly formulated in order to avoid possible doubts about the meaning of symbols employed. Special care should be taken of mathematical scripts, especially subscripts and superscripts. Authors are asked to avoid using non-mathematical symbols (x instead of $\times$) or symbols which can be easily confused (O instead of 0, l instead of ℓ).

Equations referenced within the text are numbered as follows:

$$c^2 = a^2 + b^2, \tag{1}$$

while the remaining equations are not:

$$E = mc^2.$$

Note that the colon is typically not used after "as" or "by" or "if" before equations, or after "where" when defining the meaning of variables used in some formulae. We shall therefore write the golden ratio as

$$\phi = \frac{1 + \sqrt{5}}{2},$$

and define Euler's number as follows:

$$e = \sum_{n=0}^{\infty} \frac{1}{n!},$$

where $n!$ denotes factorial of n.

4.1 Rules

Our general rules for typesetting mathematics are as follows:

- the basic size of mathematical symbols has to be equal to the size of symbols in the running text (LaTeX does this authomatically, but we have many problems with Word files),

- both single-letter mathematical variables and single-letter constants are typeset in math mode (in mathematical italics), i.e. x, y_1, Z, ρ, r_i (in this case, "i" is a variable index and not text denotation),

- all text denotations of variables are typeset also in math mode (but in roman type), e.g.

  - x_{new} (in this case, "x" is a variable and "new" is its text denotation), and not x_{new},

  - net_j (in this case, "net" is a text denotation of a variable and "j" is a variable index and not text denotation), and not net_j,

  - MSE, and not MSE ("MSE" denotes mean square error),

  - E, and not E ("E[...]" and not "$E[...]$" denotes the expected value of a random variable); E would be used, for example, for energy or error),

  - P, and not P ("P" denotes probability),

- operators (functions that are written as a single word, e.g. trigonometric functions, logarithms, limits, etc.) are typeset in math mode in roman type lowercase font, e.g.

  - $\sin\theta$, and not $sin\,\theta$,

  - $\text{e}^{-\text{i}\omega t}$, and not $e^{-i\omega t}$ (note that "e" denotes the exponential function, and "i" is the imaginary unit),

  - $\log_2 x$, and not $log_2 x$,

  - $\lim_{n\to\infty}(1+a)^n$, and not $lim_{n\to\infty}(1+a)^n$,

  - $\max_{0\le x\le 1} f(x)$, and not $max_{0\le x\le 1} f(x)$,

  - $\arg\min_{0\le x\le 1} g(x)$, and not $arg\,min_{0\le x\le 1}g(x)$ or $min\,arg_{0\le x\le 1}g(x)$,

  - $c \equiv m \bmod n$, and not $\ldots mod \ldots$,

  - $\ldots \text{diag} \ldots$, and not $\ldots diag \ldots$, etc.,

- matrices are typeset in math mode as single-letter capital bold (in roman type or greek), e.g.

  – $\mathbf{A} = \mathbf{LU}$,
  – $\mathbf{X}^{\mathrm{T}}$, where "T" denotes transposition,
  – $\mathbf{Z}_i$ (in this case, "i" is a variable index and not text denotation), and not $\mathbf{Z_i}$ or Z_i,
  – $\mathbf{\Phi}_j$ (in this case, "j" is a variable index and not text denotation), and not $\mathbf{\Phi_j}$ or Φ_j,
  – $\mathbf{S} \in \mathbb{R}^{N \times N}$, and not $S \in R^{N \times N}$ (note that $\mathbb{R}$ stands for the set of real numbers),

- vectors are typeset in math mode as single-letter lowercase bold (in roman type or greek), e.g.

  – $\mathbf{x}\mathbf{x}^{\mathrm{T}}$, where "T" denotes transposition,
  – $\mathbf{x}_1$ (the first vector of a set of M vectors $\mathbf{x}_1, \mathbf{x}_2, \ldots, \mathbf{x}_M$), and not $\mathbf{x_1}$ or $\boldsymbol{x}_1$ or $\boldsymbol{x}_1$,
  – $\mathbf{y}^k$ (in this case, "k" is a variable index and not text denotation), and not $\mathbf{y^k}$, etc.,
  – $\mathbf{a}_{i\cdot}$, $\mathbf{a}_{\cdot j}$ (row and column vectors of a matrix), and not $a_{i\bullet}$, $a_{\bullet j}$,

- matrix and vector elements are denoted by single-letters typeset in math mode lowercase italics and with indices indicating element position, e.g. matrix $\mathbf{W} = (w_{ij})$ or vector $\mathbf{v} = (v_i)$,

- vector and matrix transpositon are in math mode denoted by capital "T" in roman type, e.g. $\mathbf{W}^{\mathrm{T}}$, and not W^t or W^T or $\mathbf{W}'$,

- inner product of two vectors is always typeset as $\langle \mathbf{a}, \mathbf{b} \rangle$,

- sets are typeset in caligraphic font (using \mathcal in LATEX), e.g. $\mathcal{A} = \{a_1, a_2, a_3\}$, with exception of generic sets of numbers, which are typeset using blackboard font (use $\mathcal{AMS}$ font \mathbb in LATEX) as $\mathbb{R}$, $\mathbb{N}$, $\mathbb{Z}$, and $\mathbb{C}$,

- emphasized multiplication is typeset as $a \cdot b$, and not $a * b$, typically it would be just ab,

- division is typeset as a/b, and not $a \div b$,

- if $i \in \mathbb{Z}$, instead of $i \in [1, N]$ typeset better $i = 1, \ldots, N$.

- only equations referenced to in the text are numbered with Arabic numerals in parentheses, see Eq. (1); the remaining equations are not numbered.

Please consult both Beccari's guide for typesetting mathematics according to ISO norm (http://tug.org/TUGboat/tb18-1/tb54becc.pdf) and $\mathcal{AMS}$ guide to "amsmath" LATEX package (ftp://ftp.ams.org/ams/doc/amsmath/amsldoc.pdf) for more information.

Lemmas, definitions, theorems, examples, etc.

In LaTeX, mathematical lemmas and theorems can be typeset using special pre-defined environments. Examples are Lemma 1, Theorem 2, Proposition 3, or Example 1, for more information consult the style file and AMS guide to "amsthm" LaTeX package (ftp://ftp.ams.org/ams/doc/amscls/amsthdoc.pdf). Microsoft Word lacks this capability, please try to approach the styles outlined below. Your text will have to be be manually converted after the manuscript has been accepted for publication.

Lemma 1. *The following statement is valid:*

$$1 + 1 = 2.$$

Theorem 2 (Lax–Milgram)**.** *Let a bilinear form $a(\cdot, \cdot)$ satisfy $a(u, u) \geq \gamma \|u\|_V^2$ for all $u \in V$ (ellipticity) and $a(u, v) \leq \Gamma \|u\|_V \|v\|_V$ for all $u, v \in V$ (continuity). Let a linear functional $\ell(v) \leq \Lambda \|v\|_V$ for all $v \in V$ (continuity). Then there exists a unique $u \in V$ for which*

$$a(u, v) = \ell(v) \quad for \ all \ \ v \in V.$$

Proof. $\ldots$ xyz xyz xyz $\ldots$ xyz. $\qquad \square$

Proposition 3 (Title, [4])**.** *Bla bla bla.*

Proof. Follows directly from Theorem 2. $\qquad \square$

Example 1 (Another title)**.** Bla bla bla.

5. References

The citations in the text should be labeled with a number in square brackets (we use a numerical reference style, do not use the author-year style). All publications cited in the text have to be listed in the list of references, and the list must contain only those publications that have been cited in the text.

5.1 Digital Object Identifier (DOI)

NNW authors are obliged to include the DOI system with the cited references where available. DOIs can be found within the article full text, content, or article information at the journal (publication) or publisher website, or in the publisher on-line database.

If DOI is not available within the full text or at any other location, please, check its availability at the DOI lookup service: http://search.crossref.org. Search one-by-one by the full title and/or any other available information (author names, journal title, etc.).

We remind the NNW authors that they are obliged to use their article's DOI when referring to it in any further publication.

5.2   Rules

The list of bibliographic references has to be created according to the ISO 690 and the ISO 690-2 citation style and must be arranged alphabetically (surname in the first place). The authors of Word documents are strongly advised to use the built-in reference manager. If they sort the list of references manually, they must remember to revise the citations (numbers in square brackets) used in the text. The following rules are to be applied:

- each reference is labelled with a number in square brackets,

- a complete list of authors must be included, thus avoiding "et al."; this is a necessary condition for indexing,

- each reference must include the DOI string if available;

  - if an online publication has a DOI, write only DOI and omit "Available from:",

  - if an online publication does not have a DOI, write "Available from:",

  - all DOIs shall be cross-checked for correctness via http://dx.doi.org/;

- if referencing a printed matter, do not list the possible online source,

- all references mentioned in the list of references are cited in the text, and vice versa,

- when citing more than a single publication, cite them as [3, 4, 6] and avoid citing as [3] [4] [6].

Examples of correctly formatted most frequently used reference types for this journal are listed at the end of this text.

6.   Copyright

Only original research papers or tutorials written on request of the Editorial Board (not the ones previously published or simultaneously submitted to another journal) will be reviewed. Before the article is printed, the authors are required to transfer the copyright of the published article to the publisher. The copyright transfer form can be downloaded from http://www.nnw.cz/copyright.html.

Acknowledgement

This work was supported by. . .

References

Sample reference to a journal publication:

[1] ROBINSON R. Quiet and Poised: "Silent" Genes Accumulate Transcription Machinery. *PLoS Biol.* 2010, 8(1), e1000269, doi: 10.1371/journal.pbio.1000269.

[2] ROY A.F.V., CHENGY M.Y., WU Y.W. Time dependent evolutionary fuzzy support vector machine inference model for predicting diaphragm wall deflection. *Neural Network World*. 2014, 24(2), pp. 193–210, doi: 10.14311/NNW.2014.24.012.

Sample reference to a conference proceedings paper:

[3] OSOVETS S.V. Methods of orthogonal regression for some no correct tasks in biology. In: V.D. LAKHNO, ed. *Proceedings of the 4th International Conference on Mathematical Biology and Bioinformatics*, Pushchino, Russia. Moscow: MaxPress, 2012, pp. 94–95.

[4] KIRCHHOFF K. Combining articulatory and acoustic information for speech recognition in noisy and reverberant environments. In: *Proceedings of the 5th International Conference on Spoken Language Processing (ICSLP 1998)*, Sydney, Australia. Sydney: ISCA, 1998, pp. 891–894.

Sample reference to a book:

[5] PHILLIPS G.M. *Interpolation and Approximation by Polynomials*. CMS Books in Mathematics. New York: Springer, 2003, doi: 10.1007/b97417.

[6] RASMUSSEN C.E., WILLIAMS C.K. *Gaussian Processes for Machine Learning*. Cambridge, MA: MIT Press, 2006.

Sample reference to a chapter in an edited book:

[7] PETERKA V. Bayesian Approach to System Identification. In: P. EYKHOFF, ed. *Trends and Progress in System Identification. New York: Pergamon*, 1981, pp. 239–304, doi: 10.1016/B978-0-08-025683-2.50013-2.

Sample reference to a PhD thesis:

[8] FOUSEK P. *Extraction of Features for Automatic Recognition of Speech Based on Spectral Dynamics* [online]. Prague, 2007. PhD thesis, Czech Technical University in Prague [viewed 2014-09-17]. Available from: http://noel.feld.cvut.cz/speechlab/publications/051_disertace07.pdf

Sample reference to a contribution to a web site:

[9] BATŮŠEK R., HANZL V., PÁLKOVÁ Z., WELLS J.C. Czech SAMPA Home Page. In: J.C. WELLS, ed. *SAMPA – computer readable phonetic alphabet* [online]. University College London, 2003 [viewed 2014-09-17]. Available from: http://www.phon.ucl.ac.uk/home/sampa/czech-uni.htm

Sample reference to computer software:

[10] MOZILLA FOUNDATION. Mozilla Firefox 1.5 [software]. 2005-11-29 [accessed 2014-09-17]. Available from: http://www.firefox.web.com

[11] FEAR S. Booktabs package 1.61803 [software]. 2005-04-14 [accessed 2015-09-11]. Available from: http://www.ctan.org/pkg/booktabs/

Sample reference to a technical/research report (serial publication):

[12] INTERNET ENGINEERING TASK FORCE. RFC 3979: *Intellectual property rights in IETF technology* [online]. Edited by S. Bradner. March 2005 [viewed 18 June 2006]. Available from: http://www.ietf.org/rfc/rfc3979.txt

[13] RASIPURAM R., MAGIMAI-DOSS M. *Multitask learning to improve articulatory feature estimation and phoneme recognition* [online]. Martigny: IDIAP, 2011 [viewed 2014-09-18]. Research report Idiap-RR-21-2011. Available from: http://publications.idiap.ch/index.php/publications/show/2103

Sample reference to a technical/research report (non-serial publication):

[14] LIVESCU K., ÇETIN Ö., HASEGAWA-JOHNSON M., KING S., BARTELS C., BORGES N., KANTOR A., LAL P., YUNG L., BEZMAN A., DAWSON-HAGGERTY S., WOODS B. *Articulatory feature-based methods for acoustic and audio-visual speech recognition: 2006 JHU summer workshop final report* [online]. Baltimore: Johns Hopkins University, 2006 [viewed 2015-09-11]. Research report. Available from: http://ttic.uchicago.edu/~klivescu/papers/WS06AFSR_final_report.pdf