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## A SAMPLE OF THE USE OF DYMAMESIEN.TXT TEMPLATE FOR PREPARING A CONTRIBUTION IN L<sup>A</sup>T<sub>E</sub>X

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**Abstract:** The sample contains information on the DYMAMESIEN.txt template application for generating a contribution to the Colloquium “Dynamics of Machines and Mechanical Systems with Interactions”. The resulting manuscript in Czech or English languages should be translated by pdfL<sup>A</sup>T<sub>E</sub>X. The formats of included figures may be in \*.png, \*.jpg, or \*.pdf formats, possibly in a mixture. The contribution must not exceed eight pages.

**Key words:** Template, demonstration, rules of filling

### 1. INTRODUCTION

The sample serves as a brief guide for application of the DYMAMESIEN.txt template. The template should be copied into a new file the name of which will be composed of the first author name complemented by a letter of his first name and by extension tex. In our sample it would be FirstA.tex. Afterwards we proceed under the template keeping in mind that the contribution *must not* overcome 8 (eight) pages, and that the number of them should be even.

The template is prepared for pdfL<sup>A</sup>T<sub>E</sub>X in Czech and English versions. Commands predefined by the template should be used due to paper formatting. The command \INTRO generates this introductory section. The author may use also other L<sup>A</sup>T<sub>E</sub>X commands.

### 2. STRUCTURING THE CONTRIBUTION

The command \SECTION{...} is devoted for formatting and numbering sections. The author may use also commands listed in table 1. If necessary, the contribution may be structured into subsections in a single level by means of \SUBSECTION{...}.

### 3. FIGURES AND TABLES

Figures are imported by means of the command \includegraphics[options]{figure\_name}, where figure\_name is a name of a file (without extension) containing the required figure. The figure may be put on almost arbitrary place of the contribution. If necessary, it may be wrapped by a text.

If the wrapping text contains an equation, first optional parameter of the wrapfigure environment should be set manually.

$$G_{ij}(p_k) = \sum_{\nu=0}^N \frac{a_{ij\nu}}{p_k - s_\nu} \quad (1)$$



**Fig. 1.** Logo IT

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It is just the case of equation (1) and Fig.1.

Captions of figures have the form `\cfig{caption}{figure_label}`. Tables may be wrapped in a similar way by using the environment `wraptable` with the same parameters. Only a table caption command has the form `\ctab{caption}{table_label}`. Captions are centered in both cases.

### 3.1. References to figures, tables and equations

All defined labels may be referenced in a common way by the command `\ref{label}`, eg. see figure 1, or by `\rfig{label}` resulting in Fig.1. A similar situation takes place in case of equations when using command `\reqn{label}` or `\Reqn{label}`. The number of equation in brackets is than displayed, eg. (1). The references are cited in the common way by `\cite{ref_label}`, eg. see [2]. An equation (in a matrix form here)

$$\mathbf{x} = \mathbf{A}^+ \mathbf{y}, \quad (2)$$

is referenced by `\reqn{R2}`.

### 3.2. Formatting

Commands from `DYMAMESIEN.sty` are built in such a way that they make almost all the formatting. This is the reason why the template is rather simple. Let us note that no where are free lines between sections, subsections and equations which generate big vertical gaps. Free lines should be inserted *only* round environments `array` and `tabular` and between paragraphs. The only exception may raise, if a necessity of a text break occurs. It may be ensured by a free line or in a limiting case a command `\newpage`, should an interference of the text with a footnote be encountered.

A gentle tuning of the manuscript vertical gaps may be reached using `\lines{number}` command, where *number* declares (possibly not integer) number of *free* lines.

**Tab. 1.** New commands defined in `DYMAMESIEN.sty` to be used in the manuscript

|                                    |   |
|------------------------------------|---|
| <code>\h</code>                    | horizontal “rubber” space                                       |
| <code>\nl</code>                   | new line (eg. in a title)                                       |
| <code>\lines{v}</code>             | vertical gap, where <i>v</i> is a number of free lines          |
| <code>\cfig{caption}{label}</code> | caption below a figure with a label                             |
| <code>\ctab{caption}{label}</code> | caption for a table with a label                                |
| <code>\rfig{label}</code>          | figure reference in a text                                      |
| <code>\Rfig{label}</code>          | figure reference at the beginning of a sentence                 |
| <code>\rtab{label}</code>          | table reference in a text                                       |
| <code>\Rtab{label}</code>          | table reference at the beginning of a sentence                  |
| <code>\reqn{label}</code>          | equation reference  |
| <code>\Reqn{label}</code>          | equation reference (the same as <code>\reqn{label}</code> )     |
| <code>\INTRO</code>                | Introduction section  |
| <code>\SECTION{name}</code>        | section and its name  |
| <code>\SUBSECTION{name}</code>     | subsection and its name   |
| <code>\CONCL</code>                | Section of conclusions  |
| <code>\Acknowledge</code>          | Acknowledgement paragraph                                       |
| <code>\REFER</code>                | Section of references   |
| <code>\mx{arg}</code>              | <i>arg</i> in bold mathematical italics (matrices, vectors)     |
| <code>\lb, \rb, \bs</code>         | output characters <code>{}</code> <code>}</code> <code>\</code> |
| <code>\ds</code>                   | abbreviation for <code>\displaystyle</code>                     |

## 4. CONCLUSIONS

This is the place, where conclusions are to be put like important information on the new results, which may be exploited in practice, and the perspectives of the continuing investigations. It's

length is not prescribed, nevertheless, it may be used also for trimming a blank space at the last page of the contribution.

Since this sample contains odd number of pages, it would not be included in the Conference proceedings.

**Acknowledgment:** Here is the place for acknowledgments.

## REFERENCES

- [1] Second E.: Name of a paper, In: where published, Publisher, Year, Vol. number, Pages
- [2] První A.: Monography name, Publisher, Place, Year