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SPECIAL ASSIGNMENT TEMPLATE

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Basic template developed by Jarmo Ala-Heikkilä (2017)
Based on FF-report template by Risto Vanhanen and Jarmo Ala-Heikkilä (2011)

1. General

The official instructions for Physics Special Assignment (PHYS-E0441) are available at <https://mycourses.aalto.fi/course/view.php?id=18446&lang=en>(permanent

If this template is contradictory with the MyCourses instructions, fix the template accordingly. An attempt is made to maintain the template, but use it at your own risk.

2. Initial verification

In order to check that the SA template works in your computer environment, do the initial verification by building the example report. This is done with the following commands (or the corresponding functionalities of a graphical LaTeX environment):

```
$ unzip SA-latex-template.zip
$ cd SA-template
$ pdflatex sa
$ bibtex sa
$ pdflatex sa
$ pdflatex sa
$ pdflatex sa
```

Now you should have the example SA in pdf-format, i.e., sa.pdf. Check with a pdf-reader that the report looks OK, including its metadata (menu File -> Properties).

If you receive error messages concerning missing sty-packages, you may need to install additional LaTeX packages. For example, the package texlive-science with its dependencies had to be added to a standard TeX installation in Ubuntu 10.04.

3. Writing your Special Assignment

A new Special Assignment can be written by replacing the parts of the example SA with new contents. Some hints:

a. The master file is sa.tex. There are some MAIN DEFINITIONS in the beginning of the file that need to be updated, e.g., report language, author and title. If you wish to split your tex-source in a different manner than in the template, adjust the corresponding \input-commands.

b. In the SA template, the bibliography has been made with BiBTeX. Use of BiBTeX can be recommended, but if the bibliography has been written directly in LaTeX, modify the corresponding \input-command in sa.tex.

- c. The LaTeX packages that are used in the SA are defined in `packages.tex`. If other packages are needed, they can be added to the list. Note, however, that all packages are not compatible with each other.
- d. Some shorthand commands are defined in `commands.tex`. You may add your own favorite shorthands to this file.
- e. The report cover is defined in `cover.tex`. It is made automatically using the main definitions in `sa.tex`.
- f. The abstract page is defined by `abstract.tex`. It is otherwise made automatically, but the actual abstract text must be written in the tagged position.
- g. The main text is written in `main.tex` and its appendixes as `appendixA.tex`. If you do not have any appendixes, comment out the corresponding `\input-command` from `sa.tex`.
- h. The master file `sa.tex` is processed with `pdflatex` that produces the final pdf-report without going via PostScript. This means that eps-graphics files are not supported, but figures must be in pdf, png or jpg format and included using a following type of command:
`\includegraphics[height=80mm]{nicepicture}`

4. Processing your Special Assignment

A new SA is processed through LaTeX with the commands in Sec. 2.