

# The Old DMs class

## Faster assignments with a vintage look

Old DMs is a L<sup>A</sup>T<sub>E</sub>X class which simplifies the workflow for quick assignments while providing a vintage look.

It is based on the `article` class, so it keeps all the features while giving shortcuts for commands that are repeatedly used in an assignment-type work.

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## Why is this a thing?

L<sup>A</sup>T<sub>E</sub>X is awesome for typesetting large ambitious projects, but it can be too heavy and constraining to use for more modest work. I wanted to be able to get this L<sup>A</sup>T<sub>E</sub>X quality and versatility on small documents, or when I'm in a rush. As a student, the documents I happen to work on the most, are assignments.

Old DMs is therefore designed to make the workflow for assignments much faster. This documentation gives a glimpse of what this class does and how the documents look. I tried to make it as exhaustive as I could, but I might still be quite imperfect.

## 1 Installation

Overleaf users, move directly to 2.2.

### 1.1 Requirements

For these who run a L<sup>A</sup>T<sub>E</sub>X distribution on their system, `old-dms.cls` can be downloaded at <https://github.com/sylvain-kern/old-dms>.

It requires these custom fonts installed on your system:

- Old Standard TT;
- GFS Baskerville;
- GFS Solomos;
- T<sub>E</sub>X Gyre Pagella.

It also requires Python and the `pygments` package, which can be installed using the following line.

---

```
pip install pygments
```

---

For Windows users, make sure Python is on the PATH.

### 1.2 Linux with T<sub>E</sub>X Live

To avoid putting the `old-dms.cls` file in each L<sup>A</sup>T<sub>E</sub>X project, it is possible to properly install this class on your T<sub>E</sub>XLive distribution. If you already have a local T<sub>E</sub>XMF directory, put the `old-dms.cls` in it. If not, use the following commands<sup>[1]</sup> to create one:

---

```
mkdir -p $HOME/.texmf/tex/latex/old-dms

sudo /usr/local/texlive/2012/bin/x86_64-linux/tlmgr conf texmf
↪ TEXMFHOME $HOME/.texmf

mv old-dms.cls $HOME/.texmf/tex/latex/old-dms

mktexlsr $HOME/.texmf
```

---

The class should be properly installed on your distribution.

### 1.3 Windows with MiKTeX

To avoid putting the `old-dms.cls` file in each L<sup>A</sup>T<sub>E</sub>X project, it is possible to properly install this class on your MiKTeX distribution using the following steps<sup>[2]</sup>.

- Create a local T<sub>E</sub>XMF directory, for example:

---

```
C:\Users\<you>\localtexmf\
```

---

- Then, create a `tex\latex` directory inside `localtexmf`, and again, create a directory named `old-dms` and put your `old-dms.cls` file in it. *In fine* it should look like this:

---

```
C:\Users\<you>\localtexmf\tex\latex\old-dms\old-dms.cls
```

---

- Open MiKTeX console, go to Settings, Directories tab, click on the add button, and add your T<sub>E</sub>XMF path:

---

```
C:\Users\<you>\localtexmf\
```

---

- Then, go to the tasks tab, and run Refresh file name database.

The class should be now installed on your computer, and `.tex` files should compile with it, without the `.cls` having to be in the same folder.

## 2 Usage

### 2.1 Document preamble

The class introduction is done as follows:

---

```
\documentclass[<options>]{old-dms}
```

---

Old Dms is inherited from the `article` class, so `old-dms` takes the same options. For more information see <https://www.ctan.org/pkg/article>.

Then, rock the good old `\begin{document}`. The features provided by this class are explained further in the documentation.

## 2.2 For Overleaf users

If you are on Overleaf, you just have to paste the `old-dms.cls` file into your project, start your `.tex` file with

---

```
\documentclass[<options>]{old-dms}
```

---

and it should work properly.

## 2.3 Compilation

Old Dms use Unicode type fonts, so it compiles with Xe<sub>L</sub>AT<sub>E</sub>X. Pdf<sub>L</sub>AT<sub>E</sub>X will not work.

This uses the `minted` package, which is based on `pygments`, which needs to be installed. It must therefore be compiled with the `--shell-escape` flag. On an IDE like TeXmaker, it can be changed in

Options > Configure TeXmaker

by adding the following line in the XeLaTeX field:

---

```
xelatex -synctex=1 -interaction=nonstopmode --shell-escape %.tex
```

---

For command-line compilation, just add `--shell-escape` to the command.

# 3 Document look

This documentation is made with Old Dms class. Reading it should give a glimpse on its classy – to my standards – vintage look. The main font used is *Old Standard TT*, which has a bit more retro look than the default L<sub>A</sub>T<sub>E</sub>X font.

The section titles are centered, but not the subsection and subsubsection ones.

The paragraphs are not indented, but separated with a little vertical space like

this. Too many indentations can be distracting by constantly breaking the alignment. Paragraphs like this help to maintain a clean look, especially when there are many short chunks of text instead of a rich prose.

Text in paragraphs is justified like in raw  $\text{\LaTeX}$ , and this alignment is optimised to protrude a little bit, when the character before the line break is small, to keep a more balanced overall look, as seen in figure 1.

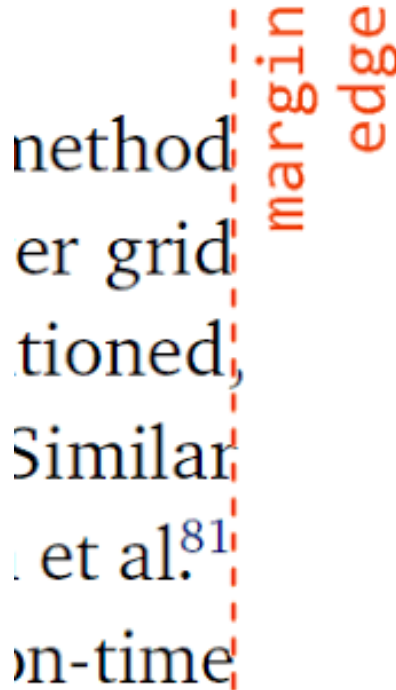


Figure 1 – Improved justification example

The figures are by default centered, and `.7\textwidth` wide.

Tables are as you want them to be. However, the packages `tabularx` and `booktabs` are included to provide tools for faster and cleaner tables.

As an example, here is a more or less complex table, which should illustrate the look and possibilities: see table 1.

Math environments are a bit pimped<sup>[3]</sup>. Here are some examples:

$$e^x = \sum_{n=0}^{+\infty} \frac{x^n}{n!} ;$$

$$\frac{\hat{p}^2}{2m} |\Psi(t)\rangle + V(\hat{\vec{r}}, t) |\Psi(t)\rangle = i\hbar \frac{\partial}{\partial t} |\Psi(t)\rangle ;$$

Table 1 – Energy states of a proton

Ground state				
$n$	$l$	$m_l$	$m_s$	Energy $E_1$ (eV)
1	0	0	+1/2	−13.6
1	0	0	−1/2	−13.6
First excited state				
$n$	$l$	$m_l$	$m_s$	Energy $E_2$ (eV)
2	0	0	+1/2	−3.4
2	0	0	−1/2	−3.4
2	1	1	+1/2	−3.4
2	1	1	−1/2	−3.4
2	1	0	+1/2	−3.4
2	1	0	−1/2	−3.4
2	1	−1	+1/2	−3.4
2	2	−1	−1/2	−3.4

$$x_{\pm} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a};$$

$$\int_{-\infty}^{+\infty} e^{-ax^2} dx = \sqrt{\frac{\pi}{a}}.$$

Old DMs changes the bibliography references. They are now in superscript instead of the full size. It mimics the Wikipedia<sup>[4]</sup> style and is less distracting.

For code snippets, it is possible to include inline code like this `def f(x):`, or full blocks of code:

---

```
#include <stdio.h>

int main() {
    printf("Hello, World!");
    return 0;
}
```

---

It is also possible to have line numbering – see 4.4.

## 4 Macros provided

### 4.1 Question numbering

A custom numbering system is provided for questions, which is independent to section changes. To insert a question number, just use

`\q.`

It displays a question number which increments each time `\q` is used. It looks like this:

**1/** This is the answer to the first question.

**2/** Now moving to the second question.

**3/** ...

**4/** ... adding some more `\q` s ...

**5/** ...

When you have to return to plain text, just put a `\t.` It tells  $\text{\LaTeX}$  you're not in a question anymore and adds some space below the last question.

The question number is a custom counter which is simply named `question`. So it can be reset by using

`\setcounter{question}{1}.`

**1/** The questions will now restart from one.

The `question` counter can be set at any given value.

There is also a subquestion system which can be used with `\sq.` It looks like this:

**1/** The question.

**2/** Another question.

(a) First subquestion.

(b) Second subquestion.

- 3/** (a) ...  
 (b) ... Some more subquestions ...  
 (c) ...

Which is obtained using the following code:

---

```

\setcounter{question}{1}

\q The question.

\q Another question.

\sq First subquestion.

\sq Second subquestion.

\q \sq \dots

\sq \dots{} Some more subquestions \dots

\sq \dots

\t
  
```

---

Subquestions are letters but this can be customized inside the class.

## 4.2 Figures

Old DMs provides a macro for figures. To insert a figure, just use

```
\fig{<path>}{<caption>}{<label>}{<width>}.
```

<path> is just the path of the image you want to put in.

<caption> is what will appear in the caption.

<label> is the figure label.

<width> is the width of the figure according to `\textwidth`. 1 will make the figure the full text width, 0.5 will make it half as wide as the text. Put nothing in the braces and it will make the figure 0.7 times the width of the text.

For example, this code



---

```
\fig{figures/bliss.jpg}{Bliss}{fig:bliss}{.6}
```

---

will provide the following figure (figure 2).



Figure 2 – Bliss

The macro has the [ht!] parameters in it, so L<sup>A</sup>T<sub>E</sub>X will do its best to place the figure where you want it to be.

### Multiple figures

Multiple figures are useful but quite long to make. It can be slightly simplified by using the following code.

---

```
\begin{figure}[ht!]  
  \centering  
  \subfig{figures/1s.png}{1s configuration}{fig:1s}{.3}  
  \subfig{figures/2p.png}{2p configuration}{fig:2p}{.3}\\  
  \subfig{figures/3d.png}{3d configuration}{fig:3d}{.3}  
  \subfig{figures/4f.png}{4f configuration}{fig:4f}{.3}  
  \caption{Atomic orbital shapes}  
  \label{fig:orbitals}  
\end{figure}
```

---

This will give the figure 3.

`\subfig` works just like `\fig` and takes the same parameters.

Subfigures can be referenced too: figure 3c.

I somehow struggled to create a simpler `multifig` environment that would automatically create the big figure with the caption and label. For more information, feel free to see section 7.

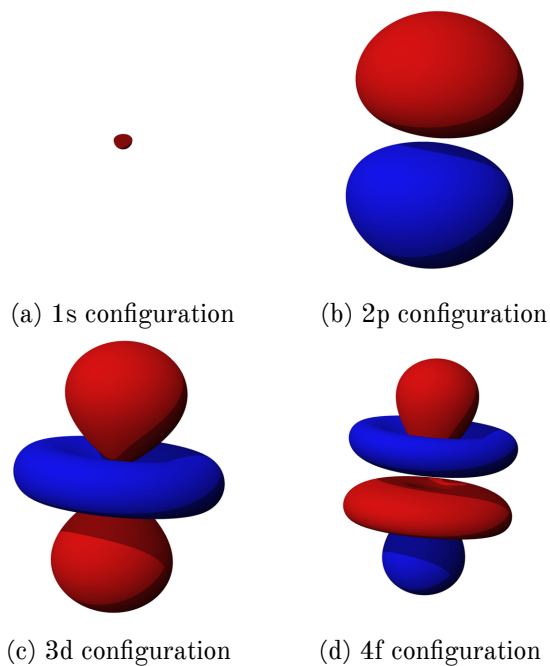


Figure 3 – Atomic orbital shapes

### 4.3 Math and physics

Old DMs gives features to write math and physics faster.

For the usual number sets, the following commands

`\N`, `\Z`, `\Q`, `\R`, `\C` will display these:

$$\mathbb{N}, \mathbb{Z}, \mathbb{Q}, \mathbb{R}, \mathbb{C}.$$

For the powers of ten, this command `\ee{}` allows to do it easily:

`h = 6.63\ee{-34} \;\text{J}\cdot\text{s}` gives

$$h = 6.63 \cdot 10^{-34} \text{ J} \cdot \text{s}.$$

For the units, this class includes the SIunits package, which documentation is at <https://ctan.org/pkg/siunits>.

As an example, this

`\unit{1}{\joule} = \unit{1}{\kilo\gram\square\meter\rpsquared\second}` gives

$$1 \text{ J} = 1 \text{ kg} \cdot \text{m}^2 \cdot \text{s}^{-2}.$$

In order to give many physics shortcuts, Old DMS includes the `physics` package. Some examples of what is possible to do with it:

`\int \frac{x}{1+x^2} dx` gives

$$\int \frac{x dx}{1+x^2};$$

`\dv{u}{t}` gives

$$\frac{du}{dt};$$

`\dv[5]{f}{x}` gives

$$\frac{d^5 f}{dx^5};$$

`\dv{t}{\pdv{L}{\dot{q}_i}} - \pdv{L}{q_i} = 0` gives

$$\frac{d}{dt} \frac{\partial L}{\partial \dot{q}_i} - \frac{\partial L}{\partial q_i} = 0;$$

`\bra{\Phi}\ket{\Psi}` gives

$$\langle \Phi | \Psi \rangle.$$

**Note:** the differential operator `d` is here in roman instead of italics. It is a convention that can be changed in the `physics` package inclusion.

There is much more packed in `physics`, so feel free to check the documentation at <https://ctan.org/pkg/physics>.

## 4.4 Code

Inline snippets and code blocks are possible, both with automatic color highlighting.

To insert a piece of code in an inline code, use

`\inlinecode{<language>{<your code>}}`.

For example, this `\inlinecode{python}{def f(x):}`

will give this `def f(x):`.

If your code uses braces like `LATEX`, it is possible to use another separator, like `..._`. For example, this

`\inlinecode{c}_for(int i=1; i <= j; i++){printf("%d,i")}_`

will give

```
for(int i=1; i <= j; i++){printf("%d,i)}.
```

For blocks of several lines of codes, the environment codebox is provided:

---

```
\begin{codebox}{python}
import numpy as np
import matplotlib.pyplot as plt

def f(x):
    return -np.exp(-x)
\end{codebox}
```

---

will give

---

```
1  import numpy as np
2  import matplotlib.pyplot as plt
3
4  def f(x):
5      return -np.exp(-x)
```

---

The environment codeboxnonos will give the same result without line numbering.

These macros are based on the minted package. It is very complete, so feel free to check the documentation here: <https://www.ctan.org/pkg/minted>.

To add captions to code boxes, use `\captionof{listing}{<your caption>}`.

For example, this

---

```
\captionof{listing}{"Hello World!" in C.}
\begin{codebox}{c}
#include <stdio.h>

int main() {
    printf("Hello, World!");
    return 0;
}
\end{codebox}
```

---

gives

Listing 1 – "Hello World!" in C.

---

```
1  #include <stdio.h>
2
3  int main() {
4      printf("Hello, World!");
5      return 0;
6  }
```

---

## 4.5 Lists, tables and other

This class provides shortcuts for the environments `itemize` and `enumerate`, which are respectively `ul` and `ol`.

For example

---

```
\begin{ul}
  \item item 1;
  \item item 2;
  \item item 3.
\end{ul}
```

---

gives

- item 1;
- item 2;
- item 3.

`\begin{ol}...\end{ol}` can be used for numbered lists.

For tables, individual cases are so specific that macros are not that useful. However, this class includes `tabularx` for adaptive columns and `booktabs` for cleaner tables.

The example given in table 1 is obtained with

---

```

\begin{table}[ht!]
  \centering
  \caption{Energy states of a proton}
  \label{tab:energy}
  \begin{tabularx}{.6\textwidth}{llllXl}
    \toprule
    \midrule
    \multicolumn{6}{l}{Ground state} \\
    $n$ & $l$ & $m_l$ & $m_s$ & & Energy $E_1$ (eV) \\
    \midrule
    1 & 0 & 0 & +1/2 & & -13.6 \\
    1 & 0 & 0 & -1/2 & & -13.6 \\
    & & & & & \\
    \multicolumn{6}{l}{First excited state} \\
    $n$ & $l$ & $m_l$ & $m_s$ & & Energy $E_2$ (eV) \\
    \midrule
    2 & 0 & 0 & +1/2 & & -3.4 \\
    2 & 0 & 0 & -1/2 & & -3.4 \\
    2 & 1 & 1 & +1/2 & & -3.4 \\
    2 & 1 & 1 & -1/2 & & -3.4 \\
    2 & 1 & 0 & +1/2 & & -3.4 \\
    2 & 1 & 0 & -1/2 & & -3.4 \\
    2 & 1 & -1 & +1/2 & & -3.4 \\
    2 & 1 & -1 & -1/2 & & -3.4 \\
    \midrule
    \bottomrule
  \end{tabularx}
\end{table}

```

---

`tabularx` takes a width parameter. The column type `x` is left-aligned with adaptive width to let the table take the width given. `y` is for centered adaptive columns.

The documentations of `booktabs` and `tabularx` can be found at <https://www.ctan.org/pkg/booktabs> and <https://www.ctan.org/pkg/tabularx>.

## 5 Package inclusions

Here is a list of all packages included in the class.

Encoding	inputenc fontenc
Geometry and color	xcolor graphicx setspace fancyhdr mdframed
Typography	microtype
Figures and tables improvement	tabularx booktabs caption
Fonts and symbols	amsfonts mathrsfs amsmath mathspec
Nerdy stuff	empheq physics SIunits
Bibliography	natbib
Miscellaneous	hyperref
Code	minted

## 6 Adaptation and customization

### 6.1 Language

It is possible to change the language of the document using the `polyglossia` package. It changes the table of contents, list of figures, list of tables headers, and the figures and tables captions.

However it does nothing for the listing captions and list of listings. To change these to French, for example, use

---

```
\renewcommand{\listingscaption}{Code source} % caption change
\renewcommand{\listoflistingscaption}{Liste des codes sources} %
↪ lol header change
```

---

### 6.2 Page layout

The geometry, margins, and page size are like vanilla `LATEX`. It can be changed using the `geometry` package to suit everyone's taste.

Old DMs uses `fancyhdr` to change the headers and footers setup. It displays nothing on the header, and the folio on the right footer.

The class can take a `twoside` argument, just like `article`, which changes the layout to put asymmetrical margins, and the folios on the outside part of the

footer.

For more header and footer customization, check <https://www.ctan.org/pkg/fancyhdr>.

## 7 Issues

### 7.1 Possible compilation errors

If compilation fails, make sure your  $\text{\LaTeX}$  distribution is up to date, and that compilation is made with  $\text{\XeLaTeX}$ .

If `minted` spits obscure errors, try to delete the `_minted-main` folder and re-compile.

### 7.2 Problems within the class

#### Multi figure environment

I struggled to create a big environment for multi-figures. Subfigures are currently wrapped in one `figure` environment. The problem is, it is hard to create a custom environment with parameters which are called on the `\end{environment}`.

#### Environments for tables

Tables are all unique, I did not achieve to create something to normalize their form or simplify their usage in  $\text{\LaTeX}$ .

#### Compilation time with $\text{\TeXmaker}$

`minted` does take a lot of resources, if you have many code boxes. The compilation time, especially with  $\text{\TeXmaker}$ , can be a bit long.



## 8 Sauce

Here is Old DMs's source code. It is also available at <https://github.com/sylvain-kern/old-dms>.

Listing 2 – old-dms.cls

---

```

1  %      .d88888b.  888      888
2  %      d88P"   "Y88b 888      888
3  %      888      888 888      888
4  %      888      888 888  .d88888
5  %      888      888 888 d88"  888
6  %      888      888 888 888  888
7  %      Y88b.   .d88P 888 Y88b 888
8  %      "Y88888P" 888  "Y88888
9
10 \NeedsTeXFormat{LaTeX2e}
11 \ProvidesClass{old-dms}[v0 class for assignments with a vintage
    ↪ look]
12
13 %      88888888b.  888b      d888
14 %      888      "Y88b 8888b  d8888
15 %      888      888 88888b.d88888
16 %      888      888 888Y88888P888 .d8888b
17 %      888      888 888 Y888P 888 88K
18 %      888      888 888 Y8P  888 "Y8888b.
19 %      888  .d88P 888      "  888      X88
20 %      88888888P" 888      888 888888P'
21
22 \LoadClassWithOptions{article}
23
24 %      Old DMs is a LaTeX class which simplifies the workflow
25 %      for quick assignments while providing a vintage look.
26 %
27 %      It is based on the article class, so it keeps all the
28 %      features while giving shortcuts for commands that are
29 %      repeatedly used in an assignment-type work.
30
31
32 %=====
33 %      LAYOUT AND SHORTCUTS      %
34 %=====
35
36 %      Basic stuff
37
38 \usepackage[T1]{fontenc}
39
40 %      Raccourcis sympa
41
42 \newenvironment{ul} % instead of begin{itemize}

```

```

43 {\begin{itemize}}
44 {\end{itemize}}
45
46 \newenvironment{ol}
47 {\begin{enumerate}}
48 {\end{enumerate}}
49
50 \newcommand{\p}[1]{\paragraph{#1}}
51
52 % Colors
53
54 \usepackage[table]{xcolor}
55
56
57 % Tables
58
59 \usepackage{tabularx} % tables with adaptive columns
60
61 \newcolumntype{Y}{>{\centering\arraybackslash}X} % tabularx column
62 ↪ type
63
64 \usepackage{booktabs} % cleaner tables
65
66 % Pictures and advanced layout
67
68 \usepackage{graphicx} % for pictures
69
70 \usepackage{multicol} % for multicolumn sections especially toc
71
72 \usepackage{fancyhdr} % custom headers and footers
73
74 \usepackage[labelsep = endash, size = small]{caption} %custom
75 ↪ captions
76
77 % Other
78
79 \usepackage{numprint} % to display large numbers in a clean way
80
81 % Biblio
82
83 \usepackage[super,square]{natbib} % for custom bibliography
84 ↪ references
85
86 % m a t h
87
88 \usepackage{amsfonts} % fonts
89 \usepackage{mathrsfs}
90 \usepackage{amsmath}

```

```

89 \renewcommand{\phi}{\varphi}
90 \renewcommand{\epsilon}{\varepsilon} % i find it more pleasing
91
92 \newcommand{\N}{\mathbb{N}} % shortcuts for usual number sets
93 \newcommand{\Z}{\mathbb{Z}}
94 \newcommand{\Q}{\mathbb{Q}}
95 \newcommand{\R}{\mathbb{R}}
96
97 \usepackage{empheq} % to have numbered equations in arrays
98
99 % vectors with a space before
100 \let\oldvec\vec
101 \renewcommand{\vec}{\:\oldvec}
102
103 % dP oo
104 % 88
105 % 88d888b. 88d888b. dP dP .d8888b. dP .d8888b. .d8888b.
106 % 88' `88 88' `88 88 88 Y800000. 88 88' `"" Y800000.
107 % 88. .88 88 88 88. .88 88 88 88. ... 88
108 % 88Y888P' dP dP `8888P88 `88888P' dP `88888P' `88888P'
109 % 88 .88
110 % dP d8888P
111
112 \usepackage[squaren, Gray, cdot]{SIunits} % units
113
114 \newcommand{\ee}[1]{\cdot 10^{#1}} % powers of 10
115
116 \newcommand{\vect}[1]{\:\overrightarrow{#1}} % new vect with
↪ overrightarrow style
117
118 \usepackage{physics} % best package on earth
119
120 % Micro-typesetting
121
122 \usepackage{microtype}
123 \UseMicrotypeSet[kerning]{allmath}
124 \SetExtraKerning{encoding={OMS,OML,U}, family={mdbch}}{p={1000,}}
125
126 % Hyperlinks in PDFs
127
128 \usepackage[hidelinks]{hyperref}
129
130
131 %=====
132 % STYLE: FONTS AND HEADERS %
133 %=====
134
135 % Fonts definitions : see
↪ https://tex.stackexchange.com/questions/9894/old-style-antique-typesetting-in-latex-tex

```

```

136
137 \usepackage{mathspec} % https://ctan.org/pkg/mathspec
138 \defaultfontfeatures{Mapping=tex-text}
139 \setmainfont{Old Standard TT}
140 \setmathsfon(Greek)[Uppercase=Plain,Lowercase=Regular]{GFS
    ↪ Solomos}
141 \setmathsfon(Latin)[Uppercase=Italic,Lowercase=Italic]{Old
    ↪ Standard TT}
142 % download GFS's fonts from http://www.greekfontociety.gr/
143
144 \newfontfamily{\bask}{GFS Baskerville}
145 \let\sum\relax
146 \DeclareMathOperator*{\sum}{\raisebox{-3.5pt}{\scalebox{2}{\rotatebox{1}{\bask
    ↪ Σ}}}} % all these lines to define this extreme summation sign
147
148 \newfontfamily{\tgp}{TeX Gyre Pagella Math}
149 \let\partial\oldpartial
150 \newcommand{\partial}{\text{\tgp }} % these three lines go for the
    ↪ weird \partial symbol
151
152 % two-column TOC
153
154 \setlength{\columnsep}{20pt}
155 \setlength{\columnseprule}{0.4pt}
156
157 \newcommand*{\multicolumntoc}{2}
158 \newcommand\beautifultableofcontents{%
159     \begin{multicols}{\multicolumntoc}[\section*{\contentsname
160         \mkboth{
161             ↪ \MakeUppercase\contentsname}{\MakeUppercase\contentsname}}] %
162     \@starttoc{toc}%
163     \end{multicols}%
164 }
165
166 \let\TOC\beautifultableofcontents
167 \renewcommand{\tableofcontents}{
168 \TOC
169 }
170
171 % Centered sections
172
173 \usepackage{titlesec}
174 \titleformat{\section}{\centering\Large\bfseries\filcenter}{\thesection}{1em}{
175
176
177 %=====
178 % CODE %
179 %=====

```

```

180
181 \usepackage{verbatim} % for verbatim environments
182
183 \usepackage{minted} % for color highlighting
184 \usemintedstyle{friendly}
185
186 \usepackage{mdframed} % for custom code boxes
187
188 \mdfdefinestyle{code_box}{%
189     topline,
190     bottomline,
191     linewidth=.4pt,
192     leftline=false,
193     rightline=false,
194     innerleftmargin=35pt,
195 }
196
197 \mdfdefinestyle{code_box_nonos}{%
198     topline,
199     bottomline,
200     linewidth=.4pt,
201     leftline=false,
202     rightline=false,
203     innerleftmargin=6pt,
204 }
205
206 \renewcommand{\theFancyVerbLine}{
207     \scriptsize
208     \textcolor{black}{
209         \texttt
210         \oldstylenums{
211             \arabic{FancyVerbLine}
212         }
213     }
214
215 % Macro environments
216
217 \newenvironment{codebox}[1]{%
218     \VerbatimEnvironment
219     \begin{mdframed}[style = code_box]%
220     \begin{minted}[
221         breaklines,
222         fontsize=\small,
223         linenos,
224         tabsize=2,
225 ]{#1}%
226 }{%
227     \end{minted}%
228     \end{mdframed}%

```

```

229 }
230
231 \newenvironment{codeboxnonos}[1]{%
232 \VerbatimEnvironment
233 \begin{mdframed}[style = code_box_nonos]%
234 \begin{minted}[
235     breaklines,
236     fontsize=\small,
237     tabsize=2,
238 ]{#1}%
239 }{%
240 \end{minted}%
241 \end{mdframed}%
242 }
243
244 %   Inline code
245
246 \newcommand{\inlinecode}[1]{\mintinline[ fontsize=\small]{#1}}
247
248
249 %=====
250 %          DOCUMENT CONFIGURATION          %
251 %=====
252
253 \usepackage{parskip}
254
255 \renewcommand{\headrulewidth}{0pt}
256 \pagestyle{fancyplain} %header
257 \fancyhf{} % sets both header and footer to nothing
258 \fancyfoot[LE,RO]{\thepage}
259
260
261 %=====
262 %          CUSTOM MACROS          %
263 %=====
264
265 %   Questions
266
267 \newcounter{question}
268 \newcommand{\q}{%
269 \setcounter{subquestion}{1}
270 \paragraph{\thequestion /}
271 \refstepcounter{question}
272 }
273
274 \newcounter{subquestion}
275 \newcommand{\sq}{%
276 (\alph{subquestion})
277 \refstepcounter{subquestion}

```

```

278 }
279
280 \setcounter{question}{1}
281
282 \renewcommand{\t}{\vskip15pt}
283
284 % Figures shortcuts
285
286 \usepackage{subcaption}
287
288 \newcommand{\fig}[4]
289 {
290 \begin{figure}[ht!]
291     \centering
292     \ifthenelse{\equal{#4}{}}
293     {\includegraphics[width=.7\textwidth]{#1}}
294     {\includegraphics[width=#4\textwidth]{#1}}%
295     \caption{#2}
296     \label{#3}
297 \end{figure}
298 }
299
300 \newcommand{\subfig}[4]
301 {
302 \begin{subfigure}{#4\textwidth}
303     \centering
304     \includegraphics[width=\textwidth]{#1}
305     \caption{#2}
306     \label{#3}
307 \end{subfigure}
308 }
309
310 \usepackage{xparse}
311
312 \NewDocumentEnvironment{multifig}{mm}
313 {
314     \begin{figure}[ht!]
315     \centering
316 }{
317     \caption{#1}
318     \label{#2}
319     \end{figure}
320 }
321
322
323 %=====
324 %          THINGS THAT MUST BE PUT HERE          %
325 %=====
326

```

327 `\renewcommand{\C}{\mathbb{C}}` %parce que c'est une redéfinition de  
↪ *commande existante mais dont on s'en balek*

---



## References

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