

Technical documentation of the `phimisci` class

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`phimisci` is the document class for *Philosophy and the Mind Sciences* (PhiMiSci), a diamond open-access journal in philosophy, neuroscience and related disciplines.

This technical documentation covers the entire source code of `phimisci`. A quick reference sheet is available separately. Submission guidelines can be found on the journal's web site, at <https://philosophymindscience.org/>.

Issues should be reported to the editorial staff or on GitHub at <https://github.com/phimisci/latex>.

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1 Basic set-up

1.1 Prerequisites

A \LaTeX installation from 2022 or newer is required. Additionally, the following packages need to be installed:

- | | | | |
|------------|------------|---------------|---------------------|
| • amsmath | • csquotes | • hyphenat | • lua-widow-control |
| • amsthm | • enumitem | • koma-script | • microtype |
| • amssymb | • etoolbox | • l3kernel | • noto |
| • array | • geometry | • l3packages | • orcidlink |
| • babel | • fontspec | • libertinus | • xcolor |
| • biblatex | • graphicx | • lineno | • xparse |
| • booktabs | • hyperref | | |

Documents in the `phimisci` class can be compiled with $\text{Lua}\LaTeX$ and $\text{X}\LaTeX$.

1.2 Class identification

Start by identifying the document class.

```
1 <*class>
2 \NeedsTeXFormat {LaTeX2e}
3 \ProvidesExplClass {phimisci} {2025-09-26} {1.0.1}
4 {Philosophy and the Mind Sciences Journal Template}
```

1.3 Messages, errors and warnings

These pre-defined messages are used at various points in the class.

missing-`logo-url` A message that warns the user in case the logo file cannot be found.

```
5 \msg_new:nnnn { phimisci } { missing-logo-url }
6 { I~didn't~find~a~logo~file~to~print~in~the~article's~header. }
7 {
8   Please~supply~the~file~location~with~the~document~class~
9   option~'settings/logo-url~==~path/to/file.pdf'.
10 }
```

missing-`font` A message that warns the user about a missing font or font file.

```
11 \msg_new:nnnn { phimisci } { missing-font }
12 { A~font~could~not~be~found. }
13 {
14   Neither~the~file~"#1"~nor~a~system-installed~font~named~
15   "#2"~could~be~found.~Please~install~the~font~(file)~or~
16   adjust~your~font~settings.~
17   For~now,~I'm~defaulting~to~the~default~sans~font.
18 }
```

tex-`installation-too-old` Inform the user that their TeX installation is too old.

```
19 \msg_new:nnn {phimisci} { tex-installation-too-old }
20 {
21   The~phimisci~class~requires~a~TeX~installation~from~2022~or~
22   newer.~Please~update~your~TeX~installation.
23 }
```

`wrong-tex-engine` Inform the user that they have selected an unsupported T_EX engine.

```
24 \msg_new:nnn { phimisci } { wrong-tex-engine }
25     {
26         You~are~using~the~\str_use:N \c_sys_engine_str~engine,~but~
27         your~document~can~only~be~compiled~with~the~#1~engine(s).
28     }
```

1.4 Version and engine checks

Perform a check whether the used L^AT_EX installation is recent enough. If not, exit immediately and give user feedback.

```
29 \RequirePackage{xparse}
30 \@ifpackagelater {xparse} {2022/01/01}
31     {}
32     {
33     \msg_fatal:nn { phimisci } { tex-installation-too-old }
34     }
```

Check whether an appropriate engines is used and exit immediately if not.

```
35 \sys_if_engine_xetex:F
36     {
37     \sys_if_engine_luatex:F
38         {
39         \msg_fatal:nnn { phimisci } { wrong-tex-engine }
40             { luatex~or~xelatex }
41         }
42     }
```

1.5 Class inheritance

This class is based on Markus Kohm's `scrartcl` class. We load this class with appropriate settings. We also load `scrlayer-scrpage` for better controls of headers and `scrlayer-notecolumn` for the paragraph counting feature.

```
43 \LoadClass [fontsize=10.5bp, oneside] {scrartcl}
44 \RequirePackage[autoenlargeheadfoot=off]{scrlayer-scrpage}
45 \RequirePackage{scrlayer-notecolumn}
```

The option `onpsinit` from `scrartcl` allows us to detect paragraphs in the header and footer of the document. We use this anchor to call `\PhiMiSci@DetectKomaHeader` (see Section 5.8 below).

```
46 \KOMAoption{onpsinit}{\protect\PhiMiSci@DetectKomaHeader{}}
```

1.6 Basic packages

We load well-known packages that are used regularly in the preparation of scientific texts.

```

47 \RequirePackage{amsmath, amsthm, amssymb, array, booktabs,
48             csquotes, enumitem, graphicx, hyphenat}

```

We also load helper packages that are necessary to program features of this class. `hyperref` and `xcolor` are special in this regard, because some of their options have to be loaded at initial package loading.

```

49 \RequirePackage[final, hyperfootnotes=false, pdfusetitle=true]{hyperref}
50 \RequirePackage[table]{xcolor}
51 \RequirePackage{etoolbox, expl3, l3keys2e, microtype, orcidlink}

```

1.7 Data storage, Boolean switches and command variants

These Booleans, control sequences, integer variables, mappings, sequences and token lists are used by the class internally to organise data, make decisions, and enable features of the class. They are only defined here but not documented individually – please refer to their usage within other functions.

```

52 \ExplSyntaxOn
53 \bool_new:N \l__phimisci_output_keywords_bool
54 \bool_new:N \l__phimisci_output_abstract_bool
55 \bool_new:N \l__phimisci_output_contact_bool
56 \bool_new:N \l__phimisci_output_rights_bool
57 \bool_new:N \l__phimisci_output_doi_bool
58 \bool_new:N \l__phimisci_output_authors_bool
59 \bool_new:N \l__phimisci_output_publication_header_footer_bool
60 \bool_new:N \l__phimisci_output_draft_footer_bool
61 \bool_new:N \l__phimisci_koma_head_mode_bool
62 \bool_new:N \l__phimisci_settings_sloppybottom_bool
63 \bool_new:N \l__phimisci_settings_luawidow_bool
64 \cs_new:Nn \__phimisci_affiliation_line_separator: { \thickspace }
65 \cs_new:Nn \__phimisci_affiliation_name_separator: { \thinspace }
66 \cs_generate_variant:Nn \seq_set_split:Nnn { NVn }
67 \cs_generate_variant:Nn \seq_set_split:Nnn { NVx }
68 \cs_generate_variant:Nn \int_set:Nn { Nx }
69 \cs_generate_variant:Nn \tl_rescan:nn { nx }
70 \int_new:N \l__phimisci_abstract_length_int
71 \int_new:N \l__phimisci_output_authors_int
72 \iow_new:N \l__phimisci_citation_file_stream
73 \prop_new:N \l__phimisci_authors_to_ids_prop
74 \prop_new:N \l__phimisci_author_ids_to_affiliations_prop
75 \prop_new:N \l__phimisci_author_ids_to_orcids_prop
76 \prop_new:N \l__phimisci_affiliation_id_resolver_prop
77 \seq_new:N \l__phimisci_keywords_seq
78 \seq_new:N \l__phimisci_authors_seq
79 \tl_const:Nn \l__phimisci_parnum_excluded_objects_base_tl
80 {
81   env/quote, env/quotation, env/itemize, env/enumerate, env/description,
82   env/list, env/table, env/figure, env/tabbing, env/lstlisting,
83   env/verbatim
84 }
85 \tl_new:N \l__phimisci_header_authors_tl
86 \tl_new:N \l__phimisci_authors_tl
87 \tl_new:N \l__phimisci_authors_citation_footer_tl

```

```

88 \tl_new:N \l__phimisci_custom_header_authors_tl
89 \tl_new:N \l__phimisci_keywords_tl
90 \tl_new:N \l__phimisci_dedication_tl
91 \tl_new:N \l__phimisci_copyright_holder_tl
92 \tl_new:N \l__phimisci_contact_tl
93 \tl_new:N \l__phimisci_contact_author_tl
94 \tl_new:N \l__phimisci_tmp_orcid_link_tl
95 \ExplSyntaxOff

```

1.8 Font loading

Philosophy and the Mind Sciences uses Libertinus as its bread and butter type, which we load through the \LaTeX package `libertinus`. PhiMiSci uses Noto as its sans font, which we load as `noto-sans`.

```

96 \RequirePackage[semibold]{libertinus}
97 \RequirePackage[regular, semibold]{noto-sans}

```

Titles and section heads use Noto Sans Display, which was not distributed on CTAN when we created this class. The font is loaded additionally via `fontspec`.

```

98 \RequirePackage{fontspec}
99 \ExplSyntaxOn
100 \IfFontExistsTF { NotoSansDisplay-Regular.ttf }
101 {
102   \newfontfamily \PhiMiSciTitleFont
103     { NotoSansDisplay-Regular.ttf }
104     [ Ligatures = TeX,
105       BoldFont = NotoSansDisplay-SemiBold.ttf,
106       ItalicFont = NotoSansDisplay-SemiBoldItalic.ttf ]
107 }
108 {
109   \IfFontExistsTF { Noto~Sans~Display }
110   {
111     \newfontfamily \PhiMiSciTitleFont
112       { Noto~Sans~Display }
113       [ Ligatures = TeX,
114         BoldFont = Noto~Sans~Display~SemiBold,
115         ItalicFont = Noto~Sans~Display~SemiBold~Italic ]
116   }
117   {
118     \let\PhiMiSciTitleFont\sffamily
119     \msg_warning:nnnn { phimisci } { missing-font }
120                       { NotoSansDisplay-SemiBold.ttf }
121                       { Noto~Sans~Display~SemiBold }
122   }
123 }
124 \ExplSyntaxOff

```

The font Noto Sans Medium is distributed on CTAN via the `noto` package. We rely on it being available.

```

125 \newfontfamily \PhiMiSciMediumFont {NotoSans-Medium.ttf}
126 [Ligatures = TeX, ItalicFont = NotoSans-MediumItalic.ttf]

```

The main text is set in 10.5pt with 13.5pt line spacing. *Note:* We are using big points (bp) as our design was laid out with PostScript points.

```
127 \AtBeginDocument{\fontsize{10.5bp}{13.5bp}\selectfont}
```

We adjust the font settings inherited from `scrartcl` and create new font commands for specific PhiMiSci elements.

The first few elements cover presentation of title, author, and other meta data on the title page.

```
128 \setkomafont{title}
129   {%
130     \raggedright%
131     \PhiMiSciTitleFont%
132     \bfseries%
133     \color{PhiMiSciHeadingBlue}%
134     \fontsize{23bp}{28bp}\selectfont%
135   }
136 \setkomafont{subtitle}
137   {%
138     \raggedright%
139     \PhiMiSciTitleFont%
140     \bfseries%
141     \color{PhiMiSciHeadingBlue}%
142     \fontsize{17.25bp}{22bp}\selectfont%
143   }
144 \setkomafont{subject}
145   {%
146     \PhiMiSciMediumFont%
147     \fontsize{9.8bp}{13.72bp}\selectfont%
148     \color{PhiMiSciHeadingBlue}%
149   }
150 \setkomafont{author}
151   {%
152     \raggedright%
153     \PhiMiSciTitleFont%
154     \color{PhiMiSciHeadingBlue}%
155     \fontsize{12bp}{17bp}\selectfont%
156     \bfseries%
157   }
158 \newkomafont{PhiMiSciAffiliationItem}
159   {%
160     \sffamily\bfseries%
161     \fontsize{10bp}{13.5bp}\selectfont%
162     \color{PhiMiSciHeadingBlue}%
163   }
164 \newkomafont{PhiMiSciAffiliationLine}
165   {%
166     \usekomafont{footnote}%
167   }
168 \newkomafont{PhiMiSciDedication}
169   {%
170     \normalfont\normalsize%
171     \fontsize{10bp}{13.72bp}\selectfont%
```

```

172     \itshape\bfseries%
173     \color{PhiMiSciHeadingBlue}%
174   }
175 \newkomafont{PhiMiSciEmail}{\normalfont\slshape}
176 \newkomafont{PhiMiSciFooter}
177   {%
178     \raggedright%
179     \usekomafont{footnote}%
180     \color{PhiMiSciHeadingBlue}%
181   }
182 \newkomafont{PhiMiSciKeywords}
183   {%
184     \normalfont\fontsize{10bp}{13.5bp}\selectfont%
185     \color{PhiMiSciHeadingBlue}%
186   }
187 \newkomafont{PhiMiSciTableBody}
188   {%
189     \sffamily\fontsize{9bp}{13.5bp}\selectfont%
190   }
191 \newkomafont{PhiMiSciWatermark}
192   {%
193     \normalfont\normalcolor\color{black!15}%
194   }

```

These next settings configure the font in the page header. Note that the colour of the header separation line is also given as a “font” option.

```

195 \addtokomafont{pagefoot}{\normalfont\color{PhiMiSciHeadingBlue}}
196 \addtokomafont{pagehead}
197   {%
198     \normalfont%
199     \PhiMiSciMediumFont%
200     \footnotesize%
201     \color{PhiMiSciBlueThree}%
202   }
203 \addtokomafont{headsepline}{\sffamily\bfseries}

```

In KOMA's font settings, the key disposition is inherited by all section headers.

```

204 \addtokomafont{disposition}{%
205   \PhiMiSciTitleFont%
206   \bfseries%
207   \color{PhiMiSciHeadingBlue}%
208 }
209 \addtokomafont{section}
210   {%
211     \fontsize{15.25bp}{18.5bp}%
212     \selectfont%
213   }
214 \addtokomafont{subsection}
215   {%
216     \color{PhiMiSciBlueThree}%
217     \fontsize{13.25bp}{17bp}%
218     \selectfont%
219   }

```



```

220 \addtokomafont{subsubsection}
221   {%
222     \color{PhiMiSciBlueThree}%
223     \fontsize{12bp}{17bp}%
224     \selectfont%
225   }
226 \addtokomafont{paragraph}
227   {%
228     \color{PhiMiSciBlueThree}%
229     \fontsize{10bp}{13.5bp}%
230     \selectfont%
231   }

```

The remaining font options configure elements in the text.

```

232 \setkomafont{dictum}{\normalfont\normalsize\itshape}
233 \setkomafont{dictumauthor}{\normalfont\normalsize}
234 \setkomafont{descriptionlabel}{\normalfont\bfseries}
235 \addtokomafont{footnote}{\fontsize{9.25bp}{11.5bp}\selectfont}
236 \setkomafont{footnotelabel}{\sffamily\bfseries\color{PhiMiSciBlueTwo}}
237 \addtokomafont{footnotereference}{\sffamily\small\bfseries\color{PhiMiSciBlueTwo}}
238 \setkomafont{caption}{\usekomafont{footnote}\bfseries}
239 \setkomafont{captionlabel}
240   {%
241     \sffamily\bfseries%
242     \fontsize{8bp}{10bp}\selectfont%
243     \color{PhiMiSciHeadingBlue}%
244   }
245 \setkomafont{notecolumn.marginpar}{\normalfont\color{black!50}}
246 \newkomafont{PhiMiSciQuote}{\normalfont\fontsize{10bp}{13.5bp}\selectfont}

```

1.9 Bibliography management through biblatex

The entire bibliography management is delegated to biblatex. We enable natbib as well so that authors can use traditional commands, most notably `\citet`, `\citep` and `\citealt`. *Philosophy and the Mind Sciences* strictly follows the citation rules of the APA.

```

247 \RequirePackage[style=apa, natbib=true]{biblatex}

```

1.10 PDF meta data and links through hyperref

After loading hyperref earlier, we set all links to our blue color.

```

248 \hypersetup{breaklinks=true,
249             colorlinks=true,
250             linkcolor=PhiMiSciBlueTwo,
251             citecolor=PhiMiSciBlueTwo,
252             urlcolor=PhiMiSciBlueTwo}

```

We delay setting the PDF title string to the end of the preamble to allow for meta data processing first. The meta data is output only in some publication stages (see Section 1.11).

```

253 \ExplSyntaxOn
254 \AtEndPreamble
255 {
256   \hypersetup
257   {
258     pdftitle = { \tl_use:N \l_phimisci_document_title_tl }
259   }
260 }
261 \ExplSyntaxOff

```

1.11 Setting the stage (preparation, submission, draft, publication)

Our `phimisci` class supports four document stages. These stages are intended to support different steps in the preparation and publication of a document:

Preparation: Used by authors to compose a paper for submission to the journal.

Submission: Used to compile the document for the peer review process.

Draft: Used internally by the PhiMiSci office for production of the proofs.

Final: A stage to produce the publication PDF.

These stages control the appearance of the generated document (see Table 1). For example, no meta data are output in the submission stage to ensure anonymity during peer review. The modes are activated through the class setting `stage` (see Section 2 for more user options). For example, draft mode is enabled with:

```
\documentclass[stage=draft]{phimisci}
```

Table 1: Possible values for stage and the document settings applied at each stage.

Stage	Draft mode	Output		
		Authors	Contact info	Footer
Preparation	X	✓	✓	X
Submission	X	X	X	X
Draft	✓	✓	✓	✓
Final	X	✓	✓	✓

`__phimisci_stage_preparation:`

Enable settings for the preparation stage.

```

262 \ExplSyntaxOn
263 \cs_new:Nn \__phimisci_stage_preparation:
264 {
265   \KOMAoptions{overfullrule=false}
266   \bool_set_true:N \l__phimisci_output_authors_bool
267   \bool_set_true:N \l__phimisci_output_contact_bool
268   \bool_set_false:N \l__phimisci_output_publication_header_footer_bool
269   \bool_set_false:N \l__phimisci_output_draft_footer_bool
270   \bool_set_true:N \l__phimisci_output_rights_bool

```

```

271 \bool_set_false:N \l__phimisci_output_doi_bool
272 }

```

__phimisci_stage_submission:

Enable settings for the submission stage.

```

273 \cs_new:Nn \__phimisci_stage_submission:
274 {
275   \KOMAOptions{overfullrule=false}
276   \bool_set_false:N \l__phimisci_output_authors_bool
277   \bool_set_false:N \l__phimisci_output_contact_bool
278   \bool_set_false:N \l__phimisci_output_publication_header_footer_bool
279   \bool_set_false:N \l__phimisci_output_draft_footer_bool
280   \bool_set_false:N \l__phimisci_output_rights_bool
281   \bool_set_false:N \l__phimisci_output_doi_bool
282 }

```

__phimisci_stage_draft: Enable settings for a draft after acceptance and during production.

```

283 \cs_new:Nn \__phimisci_stage_draft:
284 {
285   \KOMAOptions{overfullrule=true}
286   \RequirePackage{scrtime}
287   \RequirePackage{tikz}
288   \AddToHook{shipout/background}{%
289     \put(0pt, 0pt) {%
290       \begin{tikzpicture}[remember~picture, overlay]
291         \node [rotate=45, scale=5] at (current~page.center)
292         {
293           \usekomafont{PhiMiSciWatermark}
294           \tl_use:N \l__phimisci_draft_watermark_tl
295         };
296       \end{tikzpicture}
297     }
298   }
299   \RequirePackage[pagewise, switch]{lineno}
300   \AtBeginDocument{\linenumbers}
301   \bool_set_true:N \l__phimisci_output_authors_bool
302   \bool_set_true:N \l__phimisci_output_contact_bool
303   \bool_set_true:N \l__phimisci_output_publication_header_footer_bool
304   \bool_set_true:N \l__phimisci_output_draft_footer_bool
305   \bool_set_true:N \l__phimisci_output_rights_bool
306   \bool_set_true:N \l__phimisci_output_doi_bool
307 }

```

__phimisci_stage_final: Enable settings for the final publication PDF.

```

308 \cs_new:Nn \__phimisci_stage_final:

```

```

309 {
310   \KOMAOptions{overfullrule=false}
311   \bool_set_true:N \l__phimisci_output_authors_bool
312   \bool_set_true:N \l__phimisci_output_contact_bool
313   \bool_set_true:N \l__phimisci_output_publication_header_footer_bool
314   \bool_set_false:N \l__phimisci_output_draft_footer_bool
315   \bool_set_true:N \l__phimisci_output_rights_bool
316   \bool_set_true:N \l__phimisci_output_doi_bool
317 }

```

2 User-configurable options

Users can configure the output of phimisci documents using a key-value interface. Options can be loaded *early* or *late*. Early settings are those passed to `\documentclass`:

```
\documentclass[⟨⟨key1⟩=⟨value1⟩, ⟨key2⟩=⟨value2⟩, ...⟩]{phimisci}
```

Late configurations appear after `\documentclass` but ideally before `\begin{document}`. They are passed to `\PhiMiSciSettings`:

```
\PhiMiSciSettings{⟨⟨key1⟩=⟨value1⟩, ⟨key2⟩=⟨value2⟩, ...⟩}
```

Hint: Later settings always override previous ones.

Warning: Many of the options will take either no effect or cause unexpected output if they are changed in the document body. It is recommended to change all settings in the preamble, before `\begin{document}`.

A `⟨key⟩` can be any of the settings described below. Possible settings for the `⟨value⟩` depend on the respective `⟨key⟩`.

There are three types of `⟨keys⟩`. Document meta data can be configured with the first group. These are described in Section 2.1. Settings for the layout and document element behavior are stored in the `⟨settings/⟩` sub-group of keys (Section 2.2). Locale options are stored in the `⟨locale/⟩` sub-group (Section 2.3).

2.1 Configure document data

```
\PhiMiSciSettings \PhiMiSciSettings { ⟨key1⟩ = ⟨value1⟩, ⟨key2⟩ = ⟨value2⟩, ... }
```

Meta data that are not input through dedicated commands (such as `\author` or `\title`) can be configured with `\PhiMiSciSettings`. This command accepts a comma-separated key-value list of settings and values.

For example, to prepare a draft for in volume 100 in the year 2100, you would set:

```
\PhiMiSciSettings{stage=draft, volume=100, year=2100}
```

The meaning of the settings below can be found in the quick reference sheet for this class, available as a separate document.

```

318 \keys_define:nn { phimisci }
319 {

```

```

320 stage .choice:,
321 stage / preparation .code:n = { \__phimisci_stage_preparation: },
322 stage / submission .code:n = { \__phimisci_stage_submission: },
323 stage / draft .code:n = { \__phimisci_stage_draft: },
324 stage / final .code:n = { \__phimisci_stage_final: },
325 stage .default:n = {preparation},
326 volume .tl_set:N = \l_phimisci_volume_tl,
327 volume .initial:n = { \int_eval:n { \the\year - 2019 } },
328 number .tl_set:N = \l_phimisci_number_tl,
329 number .initial:n = {00},
330 doi .tl_set:N = \l_phimisci_doi_tl,
331 doi .initial:n = {10.33735/phimisci.0000.0000},
332 year .int_set:N = \l_phimisci_publication_year_int,
333 year .initial:x = {\the\year},
334 issue .tl_set:N = \l_phimisci_issue_title_tl,
335 issue .initial:n = {},
336 editor .code:n =
337   { \seq_set_split:Nnn \l_phimisci_issue_editor_seq { ; } { #1 } },
338 discussed-book .tl_set:N = \l_phimisci_discussed_book_tl,
339 discussed-book .initial:n = {},
340 discussed-book-authors .code:n =
341   {
342     \seq_set_split:Nnn \l_phimisci_discussed_book_authors_seq
343       { ; } { #1 }
344   },
345 language .clist_set:N = \l__phimisci_languages_clist,
346 language .initial:n = {english}
347 }

```

2.2 Settings to document elements and layout

`phimisci/settings` `\PhiMiSciSettings { settings / <key> = <value> }`

These settings allow you to go deep into the behavior of the class. For the features that a user is most likely to set, please refer to the quick reference sheet available as a separate document.

```

348 \keys_define:nn { phimisci / settings }
349   {
350     author-output-separator .tl_set:N = \l__phimisci_authors_osep_tl,
351     author-output-separator .initial:n = {,~},
352     author-output-final-separator .tl_set:N =
353       \l__phimisci_authors_osep_final_tl,
354     author-output-final-separator .initial:n = {~\&~},
355     affiliations-input-separator .tl_set:N =
356       \l_phimisci_affiliations_isep_tl,
357     affiliations-input-separator .initial:n = { ; },
358     citation-file .tl_set:N = \l__phimisci_citation_file_name_tl,
359     citation-file .initial:n = { phimisci-current-article.bib },
360     copyright-text .tl_set:N = \l__phimisci_copyright_tl,
361     copyright-text .initial:n = { },
362     emergency-stretch .dim_set:N = \l__phimisci_settings_emergencystretch_dim,

```

```

363 emergency-stretch .initial:n = { 2em },
364 paragraph-indent .dim_set:N = \parindent,
365 paragraph-indent .initial:n = { 6.5mm },
366 list-indent .dim_set:N = \leftmargini,
367 list-indent .initial:n = { 6.5mm },
368 extra-sentence-spacing .bool_set:N =
369   \l__phimisci_settings_extra_sentence_spacing_bool,
370 extra-sentence-spacing .initial:n = {false},
371 dictum-width .code:n = { \renewcommand* { \dictumwidth } { #1 } },
372 dictum-width .initial:n = { 0.62\textwidth },
373 draft-footer-text .tl_set:N = \l__phimisci_draft_footer_tl,
374 draft-footer-text .initial:n =
375   {
376     \textit{Draft~generated~on~\today{}}~at~\thistime{}}.}
377   },
378 draft-watermark .tl_set:N = \l__phimisci_draft_watermark_tl,
379 draft-watermark .initial:n = {PhiMiSci~uncorrected~proofs},
380 footnote-break-penalty .int_set:N =
381   \l__phimisci_settings_footnote_penalty_int,
382 footnote-break-penalty .initial:n = { 1000 },
383 footnote-distance-from-main .code:n = { \setlength{\skip\footins}{#1} },
384 footnote-distance-from-main .initial:n = { 13.5bp plus 4pt minus 2pt },
385 head-rule-thickness .dim_set:N = \l__phimisci_head_rule_height_dim,
386 head-rule-thickness .initial:n = { 0.25bp },
387 logo-url .tl_set:N = \l__phimisci_branding_logo_tl,
388 logo-url .initial:n = { },
389 logo-width .dim_set:N = \l__phimisci_logo_width_dim,
390 logo-width .initial:n = { 20.6mm },
391 submission-footer-text .tl_set:N = \l__phimisci_submission_footer_tl,
392 submission-footer-text .initial:n =
393   {
394     Submission~to~\textit{Philosophy~and~the~Mind~Sciences}
395   },
396 keyword-input-separator .tl_set:N =
397   \l__phimisci_keywords_isep_tl,
398 keyword-input-separator .initial:n = { ; },
399 keyword-output-separator .tl_set:N =
400   \l__phimisci_keywords_osep_tl,
401 keyword-output-separator .initial:n =
402   {
403     \nobreak\space
404     \textsf{\textbullet}
405     \space
406   },
407 number-authors-header .int_set:N =
408   \l__phimisci_max_authors_in_header_int,
409 number-authors-header .initial:n = { 2 },
410 orcid-color .tl_set:N = \l__phimisci_orcid_color_tl,
411 orcid-color .initial:n = { A6CE39 },
412 orphan-penalty .int_set:N = \l__phimisci_settings_orphan_penalty_int,
413 orphan-penalty .initial:n = { 300 },
414 output-orcids .bool_set:N = \l__phimisci_output_orcids_bool,
415 output-orcids .initial:n = {true},
416 paragraph-numbering-excluded-objects .tl_set:N =

```

```

417     \l__phimisci_parnum_excluded_objects_tl,
418     paragraph-numbering-excluded-objects .initial:n = {},
419     widow-control .choice:,
420     widow-control / arseneau .code:n =
421     { \bool_set_true:N \l__phimisci_settings_sloppybottom_bool },
422     widow-control / chernoff .code:n =
423     { \bool_set_true:N \l__phimisci_settings_luawidow_bool },
424     widow-penalty .int_set:N = \l__phimisci_settings_widow_penalty_int,
425     widow-penalty .initial:n = { 500 },
426 }

```

2.3 Locale settings

phimisci/locale \PhiMiSciSettings { locale / <key> = <value> }

These settings control the names of document elements. For example, the key `phimisci / locale / abstract` stores the header of the abstract on the title page.

```

427 \keys_define:nn { phimisci / locale }
428 {
429     abstract .tl_set:N = \l__phimisci_locale_abstract_tl,
430     abstract .initial:n = {Abstract},
431     contact .tl_set:N = \l__phimisci_locale_contact_tl,
432     contact .initial:n = {Primary~contact:~},
433     et-al .tl_set:N = \l__phimisci_locale_et_al_tl,
434     et-al .initial:n = {et~al.},
435     edited-by .tl_set:N = \l__phimisci_locale_edited_by_tl,
436     edited-by .initial:n = {,~edited~by~},
437     authored-by .tl_set:N = \l__phimisci_locale_authored_by_tl,
438     authored-by .initial:n = {~by~},
439     journal-name .tl_set:N = \l__phimisci_journal_name_tl,
440     journal-name .initial:n = {Philosophy~and~the~Mind~Sciences},
441     journal-short-name .tl_set:N = \l__phimisci_journal_short_name_tl,
442     journal-short-name .initial:n = {PhiMiSci},
443     keywords .tl_set:N = \l__phimisci_locale_keywords_tl,
444     keywords .initial:n = {Keywords:~},
445     volume .tl_set:N = \l__phimisci_locale_volume_tl,
446     volume .initial:n = {Vol.},
447     number .tl_set:N = \l__phimisci_locale_number_tl,
448     number .initial:n = {No.},
449     book-symposium .tl_set:N = \l__phimisci_locale_book_symposium_tl,
450     book-symposium .initial:n = {Book~symposium~on~},
451     special-issue .tl_set:N = \l__phimisci_locale_special_issue_tl,
452     special-issue .initial:n = {Special~Issue:~}
453 }

```

`\PhiMiSciSettings` `\PhiMiSciSettings {< #1 >}`

This is the implementation of the `\PhiMiSciSettings` command. It serves as an interface from user input to internal processing.

```
454 \NewDocumentCommand { \PhiMiSciSettings } { m }
455 {
456   \keys_set:nn { phimisci } { #1 }
457 }
458 \ProcessKeysOptions{phimisci}
```

3 Metadata processing

3.1 Manage author data

Author data, including affiliations and ORCiDs, are processed by an adjusted `\author` command. The input is stored and processed for the output on the title page as well as in the page header and some other places.

<code>\author</code>	<code>\author [<#1>] {<#2>}</code>
<code>\affiliation</code>	
<code>\orcid</code>	#1 : A shortened author string to be printed in the page header

#2 : Author-affiliation-ORCID triples, separated by `\and`

If the optional argument `[<#1>]` is not given, the list of authors to be printed in the header is determined from the input in `{<#2>}` according to APA citation guidelines.

In the input, author data is given as `author – affiliation – orcid` unordered triple, where the input follows the pattern:

```
Author name\affiliation{<list of affiliations>}\orcid{<orcid>}
```

Notes:

1. Affiliations and ORCiDs are optional for each author.
2. The position of `\affiliation` and `\orcid` is interchangeable.
3. Within `{<list of affiliations>}`, items are separated by `;`. Multiple authors are separated by the marker `\and`.
4. New lines are allowed in the argument to `\author`.
5. `\affiliation` and `\orcid` are *not* defined commands here, but merely elements parsing to hook on to [see 6, p. 46].

Example:

```
\author{
  Author 1\affiliation {<Affiliation 1; Affiliation 2>} \orcid{<...>}
  \and Author 2 \orcid{<...>} \affiliation{<...>}
  \and Author 3 \affiliation{<Affiliation 2>}
}
```

```
459 \RenewDocumentCommand {\author} { 0{} +m }
```



```

460 {
461   \tl_set:Nx \l__phimisci_custom_header_authors_tl { #1 }
462   \gdef \@author { #2 }
463   \AtEndPreamble { \PhiMiSci@ProcessAuthorData { #2 } }
464 }

```

\PhiMiSci@ProcessAuthorData

A document command that forwards user input to internal author data processing in `\phimisci_process_author_data:nNNN`.

```

465 \NewDocumentCommand { \PhiMiSci@ProcessAuthorData } { +m }
466   {%
467     \exp_args:No \phimisci_process_author_data:nNNN
468       { #1 }
469       \l__phimisci_authors_to_ids_prop
470       \l__phimisci_author_ids_to_affiliations_prop
471       \l__phimisci_author_ids_to_orcids_prop
472     \hypersetup { pdfauthor = { \tl_use:N \l__phimisci_authors_tl } }
473   }

```

\PhiMiSci@OutputAuthorData

Control the output of author data on the title page. This function is called by `\maketitle`.

```

474 \NewDocumentCommand { \PhiMiSci@OutputAuthorData } {}
475 {
476   \group_begin:
477   \parindent 0pt
478   \bool_if:NT \l__phimisci_output_authors_bool
479     {
480       \group_begin:
481       \usekomafont{author}
482       \phimisci_output_authors:NNN
483       \l__phimisci_authors_to_ids_prop
484       \l__phimisci_author_ids_to_affiliations_prop
485       \l__phimisci_author_ids_to_orcids_prop
486     \group_end:

```

Check whether the article is part of a book symposium or a special issue. Articles cannot be part of both; if both are given, the special issue takes precedence. Whether or not the article is part of a special issue or a book symposium is determined through the article's meta data. If any title for a book symposium or special issue is given, the article is considered part of such.

```

487     \tl_if_blank:VTF \l__phimisci_issue_title_tl
488     {
489       \tl_if_blank:VF \l__phimisci_discussed_book_tl
490       {
491         \vskip 1em
492         \group_begin:
493         \usekomafont{subject}

```

```

494     \tl_use:N \l__phimisci_locale_book_symposium_tl
495     \textit{\tl_use:N \l_phimisci_discussed_book_tl}
496     \seq_if_empty:NF \l_phimisci_discussed_book_authors_seq
497     {
498         \tl_use:N \l__phimisci_locale_authored_by_tl
499         \seq_use:Nnnn
500         \l_phimisci_discussed_book_authors_seq
501         {~\&~}
502         {,~}
503         {,~\&~}
504     }
505     \seq_if_empty:NF \l_phimisci_issue_editor_seq
506     {
507         \tl_use:N \l__phimisci_locale_edited_by_tl
508         \seq_use:Nnnn
509         \l_phimisci_issue_editor_seq
510         {~\&~}
511         {,~}
512         {,~\&~}
513     }
514     \group_end:
515     \par
516 }
517 {
518 }
519     \vskip 1em
520     \group_begin:
521     \usekomafont{subject}
522     \tl_use:N \l__phimisci_locale_special_issue_tl
523     \textit{\tl_use:N \l_phimisci_issue_title_tl}
524     \seq_if_empty:NF \l_phimisci_issue_editor_seq
525     {
526         \tl_use:N \l__phimisci_locale_edited_by_tl
527         \seq_use:Nnnn
528         \l_phimisci_issue_editor_seq
529         {~\&~}
530         {,~}
531         {,~\&~}
532     }
533     \group_end:
534     \par
535 }
536 \tl_if_blank:VF \l__phimisci_dedication_tl
537 {
538     \vskip 1em
539     \group_begin:
540     \usekomafont{PhiMiSciDedication}
541     \tl_use:N \l__phimisci_dedication_tl
542     \par
543     \group_end:
544 }
545 \vfill
546 \group_begin:
547 \phimisci_output_affiliations:N

```

```

548         \l__phimisci_affiliation_id_resolver_prop
549     \group_end:
550     \par
551     \vspace* { 2\baselineskip }
552 }
553 \group_end:
554 }

```

`\phimisci_process_author_data:nNNN`

This command handles the internal author-affiliation-orcid processing.

- #1 : The input author-affiliation-orcid text, and the following output:
- #2 : A property map that assigns each author to a unique ID.
- #3 : A property map that assigns each ID to an affiliation.
- #4 : A property map that assigns each ID to an ORCID.

```

555 \cs_new:Npn \phimisci_process_author_data:nNNN #1#2#3#4
556 {
557     \seq_clear_new:N \l__phimisci_authors_header_tmp_seq

```

We first split the input string by `\and`, the common separator between authors in the \LaTeX world. The result is stored in a sequence.

```

558     \seq_set_split:Nnn \l__phimisci_authors_seq
559         { \and~ }
560         { #1 }

```

We now loop over the items stored in the sequence. The sequence is a list of all authors and each item stores all information of a single author. The currently processed author item is known to \LaTeX as `##1`.

```

561     \int_zero_new:N \l__phimisci_current_author_id_int
562     \seq_map_inline:Nn \l__phimisci_authors_seq
563     {
564         \tl_clear_new:N \l__phimisci_author_tmp_tl
565         \tl_set:Nn \l__phimisci_author_tmp_tl { ##1 }

```

The author's affiliation and ORCID are extracted using regex parsing. As stated above, `\affiliation` and `\orcid` are not defined control sequences, but rather hooks for the regex parsing to attach to. The order of the author's name, the affiliation and ORCID is irrelevant to the regex parsing – though it is certainly best practice to advise users to always follow a conventional input pattern.

These two regular expressions each match a brace group following, if provided in the input, `\affiliation` and `\orcid`. The resulting sequence variables will contain the completely matched string as a first item – for example, `\affiliation{ABC University}` – and the contents of the brace group as the second item – for example, `ABC University`.

```

566     \regex_extract_once:nnN
567         { \c{affiliation} \cB. (\c[^\E].*) \cE. }
568         { ##1 }
569     \l__phimisci_tmp_author_affiliation_seq

```

```

570
571 \regex_extract_once:nnN
572   {\c{orcid} \cB. (\c[^\BE].*) \cE.}
573   { ##1 }
574   \l__phimisci_tmp_author_orcid_seq

```

Following extraction we remove the author's affiliation and ORCID from the input so that only the name remains in the data for the current author.

```

575 \regex_replace_all:nnN {\c{orcid} \cB. (\c[^\BE].*) \cE.}
576   {}
577   \l__phimisci_author_tmp_tl
578 \regex_replace_all:nnN {\c{affiliation} \cB. (\c[^\BE].*) \cE.}
579   {}
580   \l__phimisci_author_tmp_tl

```

Next, we trim leading and trailing spaces and store the name of the author in a sequence.

```

581 \tl_trim_spaces:N \l__phimisci_author_tmp_tl
582 \seq_put_right:NV \l__phimisci_authors_header_tmp_seq
583   \l__phimisci_author_tmp_tl

```

Loop over the affiliation(s) of the current author and assign each ID to an affiliation ID, if not already present. #####1 is the current affiliation. We first split the sequence of affiliations for each author.

```

584 \seq_clear_new:N \l__phimisci_author_affiliation_seq
585 \seq_clear_new:N \l__phimisci_author_affiliation_ids_seq
586 \tl_clear_new:N \l__phimisci_afil_loop_tl
587 \seq_set_split:NVx \l__phimisci_author_affiliation_seq
588   \l__phimisci_affiliations_isep_tl
589   {
590     \seq_item:Nn
591       \l__phimisci_tmp_author_affiliation_seq
592       {2}
593   }

```

We now loop over all the affiliations of an author. We first check whether the current affiliation, #####1, is empty or is already assigned to an affiliation ID. If neither is the case, we create a new global ID for this affiliation. We then add the affiliation ID to the author's sequence of affiliation IDs.

```

594 \seq_map_inline:Nn \l__phimisci_author_affiliation_seq
595   {
596     \tl_if_blank:nF { #####1 }
597     {
598       \prop_get:NnNTF \l__phimisci_affiliation_id_resolver_prop { #####1 }
599       \l__phimisci_afil_loop_tl
600       {
601         \seq_put_right:NV
602           \l__phimisci_author_affiliation_ids_seq
603           \l__phimisci_afil_loop_tl
604       }
605     }
606     \prop_put:Nxx \l__phimisci_affiliation_id_resolver_prop

```

```

607         { ####1 }
608         {
609             \int_eval:n
610             {
611                 \prop_count:N \l__phimisci_affiliation_id_resolver_prop
612                 + 1
613             }
614         }
615         \seq_put_right:Nx \l__phimisci_author_affiliation_ids_seq
616         {
617             \prop_count:N \l__phimisci_affiliation_id_resolver_prop
618         }
619     }
620 }
621 }

```

We now store all the data in three separate property lists. In the first we assign authors to (lists of) affiliations. Secondly, we map authors to their ORCID IDs in a separate property list. And third, we store the e-mail address in another property map. The currently processed affiliation is given by ####1.

```

622     \prop_put:Nxx { #2 }
623     { \int_use:N \l__phimisci_current_author_id_int }
624     { \tl_use:N \l__phimisci_author_tmp_tl }
625
626     \prop_put:Nxx { #3 }
627     { \int_use:N \l__phimisci_current_author_id_int }
628     {
629         \seq_use:Nn
630         \l__phimisci_author_affiliation_ids_seq
631         {,~}
632     }
633
634     \prop_put:Nxx { #4 }
635     { \int_use:N \l__phimisci_current_author_id_int }
636     { \seq_item:Nn \l__phimisci_tmp_author_orcid_seq {2} }

```

Increase the ID and continue the loop with the next author.

```

637     \int_incr:N \l__phimisci_current_author_id_int
638 }

```

When all authors are parsed, create a token list of authors to be placed in the header. If there are more authors than are allowed, print the first author and the *et al.* string. The author string in the header can be overwritten by the optional argument to `\author` (but only if author printing in the header is enabled).

```

639     \bool_if:NTF \l__phimisci_output_authors_bool
640     {
641         \tl_if_blank:VTF \l__phimisci_custom_header_authors_tl
642         {
643             \tl_set:Nx \l__phimisci_header_authors_tl
644             {
645                 \int_compare:nNnTF

```

```

646         { \seq_count:N \l__phimisci_authors_header_tmp_seq }
647         >
648         { \l__phimisci_max_authors_in_header_int }
649         {
650         \seq_item:Nn \l__phimisci_authors_header_tmp_seq { 1 }
651         \ \tl_use:N \l__phimisci_locale_et_al_tl
652         }
653         {
654         \seq_use:Nnnn \l__phimisci_authors_header_tmp_seq
655             {~\&~}
656             {,~}
657             {,~\&~}
658         }
659     }
660 }
661 {
662     \tl_set_eq:NN \l_phimisci_header_authors_tl
663         \l__phimisci_custom_header_authors_tl
664 }
665 \tl_set:Nx \l_phimisci_authors_tl
666 {
667     \seq_use:Nnnn \l__phimisci_authors_header_tmp_seq
668         { \l__phimisci_authors_osep_final_tl }
669         { \l__phimisci_authors_osep_tl }
670         { \l__phimisci_authors_osep_final_tl }
671 }
672 \tl_set:Nx \l__phimisci_authors_citation_footer_tl
673 {
674     \seq_use:Nn \l__phimisci_authors_header_tmp_seq
675         { ~and~ }
676 }
677 \int_compare:nNnTF
678 { \seq_count:N \l__phimisci_authors_header_tmp_seq } = 1
679 {
680     \tl_set:Nn \l__phimisci_copyright_holder_tl { The~author }
681 }
682 {
683     \tl_set:Nn \l__phimisci_copyright_holder_tl { The~authors }
684 }
685 }
686 {
687     \tl_set:Nn \l_phimisci_header_authors_tl { Anonymized }
688 }
689 }

```

We have now sorted our data in two mappings, a {author: <affiliations>} and an {author: orcid} mapping. These two are now output.

\phimisci_output_authors:NNN

- #1 : A property mapping that assigns each author to an ID.
- #2 : A property map that assigns each ID to a list of affiliations.
- #3 : A property map that assigns each ID to an ORCID.

```

690 \cs_new:Npn \phimisci_output_authors:NNN #1#2#3
691 {
692   \seq_clear_new:N \l__phimisci_output_authors_loop_seq
693   \int_set:Nx \l__phimisci_output_authors_int
694     { \prop_count:N \l__phimisci_author_ids_to_affiliations_prop }
695   \int_do_until:nNnn { \seq_count:N \l__phimisci_output_authors_loop_seq }
696     =
697     {
698       \l__phimisci_output_authors_int
699     }
700   {
701     \seq_put_right:Nx
702       \l__phimisci_output_authors_loop_seq
703       {
704         \seq_count:N
705           \l__phimisci_output_authors_loop_seq
706       }
707   }
708   \seq_map_inline:Nn \l__phimisci_output_authors_loop_seq
709     {
710       \tl_clear_new:N \l__phimisci_affiliation_ids_of_author_tl
711       \tl_clear_new:N \l__phimisci_output_author_temp_tl
712       \prop_get:NnN #2 { ##1 } \l__phimisci_affiliation_ids_of_author_tl
713       \prop_get:NnN #1 { ##1 } \l__phimisci_output_author_temp_tl
714       \tl_rescan:nx {} { \l__phimisci_output_author_temp_tl }
715       \tl_if_empty:NF \l__phimisci_affiliation_ids_of_author_tl
716         {
717           \textsuperscript
718             {
719               \tl_use:N \l__phimisci_affiliation_ids_of_author_tl
720               \str_if_eq:eeT \l__phimisci_output_author_temp_tl
721                 \l__phimisci_contact_author_tl
722                 { ,\,* }
723             }
724         }
725       \phimisci_print_orcid:n { ##1 }
726       \int_compare:nNnT { ##1 } < { \l__phimisci_output_authors_int + 1 }
727         {
728           \par
729         }
730     }
731 }

```

\phimisci_output_affiliations:N

#1 : A property map that assigns each affiliation ID to the name of the affiliation.

```

732 \cs_new:Npn \phimisci_output_affiliations:N #1
733 {
734   \prop_map_inline:Nn #1
735     {
736       \group_begin:
737       \usekomafont { PhiMiSciAffiliationItem }

```

```

738     \textsuperscript
739     {
740       \tl_rescan:nm {} { ##2 }
741     }
742   \group_end:
743   \group_begin:
744     \__phimisci_affiliation_name_separator:
745     \usekomafont { PhiMiSciAffiliationLine }
746     \tl_rescan:nm {} { ##1 }
747   \group_end:
748   \__phimisci_affiliation_line_separator:
749 }
750 \par
751 \tl_if_blank:nF { \l__phimisci_contact_tl }
752 {
753   \group_begin:
754     \usekomafont { PhiMiSciAffiliationItem }
755     *
756   \group_end:
757   \group_begin:
758     \__phimisci_affiliation_name_separator:
759     \usekomafont { PhiMiSciAffiliationLine }
760     \tl_use:N \l__phimisci_locale_contact_tl
761     \tl_use:N \l__phimisci_contact_tl
762   \group_end:
763   \par
764 }
765 }

```

\phimisci_print_orcid:n Outputs the ORCID assigned to an author with the ID $\{ \langle \#1 \rangle \}$. No output is given when the author is not assigned to an ORCID (usually because none was given in user input).

The ORCID is output as a hyperlinked icon using `\orcidlink` from the `orcidlink` package. The color of that icon can be configured via `\PhiMiSciSettings{settings / orcid-color = $\langle HTML \text{ color code} \rangle$ }`.

```

766 \cs_new:Npn \phimisci_print_orcid:n #1
767 {
768   \prop_get:NnNT
769   \l__phimisci_author_ids_to_orcids_prop
770   { #1 }
771   \l__phimisci_tmp_orcid_link_tl
772   {
773     \tl_if_empty:NF \l__phimisci_tmp_orcid_link_tl
774     {
775       \,
776       \orcidlink{ \tl_use:N \l__phimisci_tmp_orcid_link_tl }
777     }
778   }
779 }

```


3.2 Managing the title and a short title (`\title`)

`\title` `\title` [*abbreviated title*] {*full title*}

The {*full title*} is printed as the document title as well as in the PDF meta data. If an [*abbreviated title*] is given, this one is printed in the running head. If none is supplied, the {*full title*} is used there. An [*abbreviated title*] should be used when the {*full title*} is too long to fit one line in the header.

```
780 \tl_new:N \l_phimisci_document_title_tl
781 \tl_new:N \l_phimisci_short_document_title_tl
782 \RenewDocumentCommand {\title} { O{#2} m }
783 {
784   \tl_set:Nn \l_phimisci_document_title_tl { #2 }
785   \tl_set:Nn \l_phimisci_short_document_title_tl { #1 }
786   \RenewDocumentCommand {\@title} {} { #2 }
787 }
```

3.3 Manage the abstract, keywords, contact details and information about reviewed books

`\contact` `\contact` [*type*] {*contact name*} {*address*}

Store the contact details given on the title page. The {*contact name*} can be empty. When {*contact name*} matches one of the authors in `\author`, an asterisk is placed after the author to indicate them as the primary author. The {*address*} can be of different types. When [*type*] is not given or set to `email`, {*address*} will be handled as an e-mail address and will be formatted appropriately as `mailto:{address}`. When [*type*] is set to `website`, the output will be formatted as the URL given in {*address*}. When [*type*] is set to an other value, the {*address*} will be output as free-form output without a link.

```
788 \DeclareDocumentCommand {\contact} { O{email} m m }
789   {%
790     \bool_if:NT \l__phimisci_output_contact_bool
791     {
792       \tl_set:Nn \l__phimisci_contact_author_tl { #2 }
793       \str_case:nnF { #1 }
794         {
795           {email}
796           {
797             \tl_set:Nn \l__phimisci_contact_tl
798               {
799                 \href{mailto:#3}{#3}
800               }
801           }
802           {website}
803           {
804             \tl_set:Nn \l__phimisci_contact_tl
805               {
806                 \url{#3}

```

```

807         }
808     }
809 }
810 {
811     \tl_set:Nn \l__phimisci_contact_tl { #3 }
812 }
813 }
814 }

```

\abstract Store the abstract of the article.

```

815 \DeclareDocumentCommand {\abstract} {+m}
816 {%
817     \tl_if_blank:nTF { #1 }
818     {
819         \bool_set_false:N \l__phimisci_output_abstract_bool
820     }
821     {
822         \phimisci_check_abstract_length:n { #1 }
823         \tl_set:Nn \l__phimisci_abstract_tl { #1 }
824         \bool_set_true:N \l__phimisci_output_abstract_bool
825     }
826 }

```

\keywords Store a list of keywords, separated by a user-configurable input separator. (`\l__phimisci_keywords_isep_tl`).

```

827 \DeclareDocumentCommand {\keywords} {m}
828 {%
829     \tl_if_blank:nTF { #1 }
830     {
831         \bool_set_false:N \l__phimisci_output_keywords_bool
832     }
833     {
834         \tl_set:No \l__phimisci_keywords_tl
835         {
836             \phimisci_process_keywords:n { #1 }
837         }
838         \bool_set_true:N \l__phimisci_output_keywords_bool
839         \hypersetup { pdfkeywords = { #1 } }
840     }
841 }

```

\dedication A user-interface for the authors to store the dedication for their article.

```

842 \DeclareDocumentCommand {\dedication} { +m }
843 {

```

```

844 \tl_set:Nn \l__phimisci_dedication_tl { #1 }
845 }

```

```

\phimisci_check_abstract_length:n
\phimisci_process_keywords:n

```

Functions to process the abstract and keyword.

The length of the abstract is estimated based on an average of eight characters per word. A warning is issued if the function suspects that the abstract might be longer than the journal's limit of 250 words. Long abstract can break the layout of the title page, but this function can give false warnings.

```

846 \cs_new:Npn \phimisci_check_abstract_length:n #1
847 {
848   \int_set:Nn \l__phimisci_abstract_length_int { \tl_count:o { #1 } }
849   \int_compare:nNt { \l__phimisci_abstract_length_int } < { 100 }
850   { \AtEndDocument{ \ClassWarning {phimisci} {Very~short~abstract.} } }
851   \int_compare:nNt { \l__phimisci_abstract_length_int } > { 2000 }
852   { \AtEndDocument { \ClassWarning {phimisci} {Very~long~abstract.} } }
853 }
854 \cs_new:Npn \phimisci_process_keywords:n #1
855 {
856   \seq_set_split:NVn \l__phimisci_keywords_seq
857     \l__phimisci_keywords_isep_tl
858     { #1 }
859   \seq_use:Nn \l__phimisci_keywords_seq
860     { \l__phimisci_keywords_osep_tl }
861 }

```

\PhiMiSci@OutputMetadata Conditionally output meta data if supplied in the preamble. This function is called by `\maketitle`.

```

862 \NewDocumentCommand {\PhiMiSci@OutputMetadata} {}
863 {
864   \bool_if:nT
865   {
866     \l__phimisci_output_keywords_bool
867     || \l__phimisci_output_abstract_bool
868   }
869   {
870     \bool_if:NT \l__phimisci_output_abstract_bool
871     {
872       \subsubsection*{\tl_use:N \l__phimisci_locale_abstract_tl}
873       \group_begin:
874         \usekomafont{ PhiMiSciQuote }
875         \tl_use:N \l__phimisci_abstract_tl
876         \par
877       \group_end:
878     }
879     \bool_if:NT \l__phimisci_output_keywords_bool
880     {

```

```

881         \vskip 1em
882         \noindent
883         \group_begin:
884             \usekomafont{ PhiMiSciKeywords }
885             \textbf{\tl_use:N \l__phimisci_locale_keywords_tl}
886             \tl_use:N \l__phimisci_keywords_tl
887             \par
888         \group_end:
889     }
890     \clearpage
891 }
892 }

```

We make sure that the meta data is only provided in the preamble so that we can process it before using `\maketitle`.

```

893 \AtBeginDocument
894 {
895     \RenewDocumentCommand {\keywords} {m}
896     {
897         \ClassError {phimisci} {Command~can~only~be~used~in~preamble}
898         {
899             The command \string\keywords can only be used in the preamble.
900             Please move your keywords before \string\begin\string{document\string}.
901         }
902     }
903 }

```

3.4 Generate an auxiliary bibliography file

```

904 \AtBeginDocument
905 {
906     \iow_open:Nn \l__phimisci_citation_file_stream
907         { \l__phimisci_citation_file_name_tl }
908     \iow_now:Nx \l__phimisci_citation_file_stream
909     {
910         @article{phimisci-current-article,\iow_newline:
911             author = { \tl_use:N \l__phimisci_authors_citation_footer_tl },
912             \iow_newline:
913             year   = { \int_use:N \l_phimisci_publication_year_int },
914             \iow_newline:
915             title  = { {\tl_use:N \l_phimisci_document_title_tl} },
916             \iow_newline:
917             \tl_if_blank:VF \@subtitle
918             {
919                 subtitle = { {\@subtitle} },
920             \iow_newline:
921             }
922             journal = { \tl_use:N \l__phimisci_journal_name_tl },
923             \iow_newline:
924             volume = { \tl_use:N \l_phimisci_volume_tl },
925             \iow_newline:
926             doi    = { \tl_use:N \l_phimisci_doi_tl },
927             \iow_newline:

```

```

928         options = { dataonly = true }
929     }
930 }
931 \iow_close:N \l__phimisci_citation_file_stream
932 }
933 \AtEndPreamble
934 {
935     \addbibresource { \tl_use:N \l__phimisci_citation_file_name_tl }
936 }

```

3.5 Configure the document language

The list passed as `\documentclass[language=(list of languages)]{phimisci}` is processed here. By babel's convention, if there is more than one language in the list, the last is considered to be the main document language.

```

937 \RequirePackage [ \clist_use:Nn \l__phimisci_languages_clist {,} ] {babel}
938 \ExplSyntaxOff

```

4 Layout and design

4.1 Page geometry

We configure the paper size and the type area through the margins.

```

939 \RequirePackage[a4paper,
940                 landscape,
941                 twocolumn,
942                 hmargin=25mm,
943                 top=23.625mm,
944                 bottom=22.7375mm,
945                 footskip=0pt,
946                 columnsep=25mm,
947                 headsep=8.25mm,
948                 headheight=4.5mm
949                 ]
950 {geometry}

```

4.2 Journal color definitions

PhiMiSciHeadingBlue
PhiMiSciBlueTwo
PhiMiSciBlueThree
PhiMiSciGrey

The custom colors used in the journal's layout are:



PhiMiSciHeadingBlue, in titles



PhiMiSciBlueTwo, for hyperlinks



PhiMiSciBlueThree, for subsections and the header line



PhiMiSciGrey, for some text elements

```
951 \definecolor{PhiMiSciHeadingBlue}{RGB}{10, 26, 97}
952 \definecolor{PhiMiSciBlueTwo}{RGB}{19, 47, 178}
953 \definecolor{PhiMiSciBlueThree}{RGB}{12, 30, 115}
954 \definecolor{PhiMiSciGrey}{RGB}{157, 164, 196}
```

4.3 Layout of section headings

\sectionformat
\subsectionformat
\subsubsectionformat
\paragraphformat

The section number width is set to 12.5mm, twice the \parindent, and the section header follows after that.

```
955 \renewcommand*{\sectionformat}
956   {%
957     \hbox to 12.5mm {\thesection\autodot}%
958   }
959 \renewcommand*{\subsectionformat}
960   {%
961     \hbox to 12.5mm {\thesubsection\autodot}%
962   }
963 \renewcommand*{\subsubsectionformat}
964   {%
965     \hbox to 12.5mm {\thesubsubsection\autodot}%
966   }
967 \renewcommand*{\paragraphformat}
968   {%
969     \hbox to 12.5mm {\theparagraph\autodot}%
970   }
```

`\section` Our layout uses a slightly larger spacing before section headings.
`\subsection`
`\subsubsection`

```

971 \RedeclareSectionCommand[%
972     afterindent=false, beforeskip=22bp plus 22bp, afterskip=8.5bp%
973     ]{section}
974 \RedeclareSectionCommand[%
975     afterindent=false, beforeskip=13.5bp plus 13.5bp, afterskip=10bp%
976     ]{subsection}
977 \RedeclareSectionCommand[%
978     afterindent=false, beforeskip=13.5bp plus 13.5bp, afterskip=10bp%
979     ]{subsubsection}

```

`\paragraph` We use `\paragraph` as a heading on the fourth level (e.g., 1.1.1.1). The following settings follow an example from the KOMA manual.

```

980 \RedeclareSectionCommand[%
981     afterindent=false, afterskip=6.75bp, beforeskip=6.75bp plus 6.75bp,%
982     indent=0pt, counterwithin=subsubsection, level=4%
983     ]{paragraph}

```

`secnumdepth` We want `\paragraphs` to be numbered and listed in the table of contents (i.e., in the PDF
`tocdepth` meta data). We set `secnumdepth` and `tocdepth` accordingly.

```

984 \setcounter{secnumdepth}{\paragraphnumdepth}
985 \setcounter{tocdepth}{\paragraphtocdepth}

```

4.4 Footnotes

These options configure how the footnotes are typed at the bottom of the page.

```

986 \setfootnoterule[0pt]{0pt}
987 \deffootnote{3.125mm}{3.125mm}{%
988     \makebox[3.125mm][r]{\textsuperscript{\thefootnotemark\ }}%
989     }

```

Automatically type a superscripted comma in case two `\footnotes` are called immediately following each other.

```

990 \KOMAoption{footnotes}{multiple}

```

4.5 Tolerances and penalties: Optimisation of line and page breaks

Configure the penalties for widows and orphans, that is, for last lines of paragraphs on new pages and for first lines of a paragraph at the end of a page.

```

991 \ExplSyntaxOn
992 \clubpenalty = \int_use:N \l__phimisci_settings_orphan_penalty_int
993 \widowpenalty = \int_use:N \l__phimisci_settings_widow_penalty_int

```

The class has two ways to automatically treat widows and orphans. The first is originally due to Donald Arseneau and selected via the `settings/widow-control/arseneau` option. The code here follows the implementation in the `memoir` class.

```

994 \bool_if:NT \l__phimisci_settings_sloppybottom_bool
995 {
996   \def\@textbottom{\vskip \z@ \@plus.0001fil \@minus .95\topskip}
997   \topskip=1\topskip \@plus 0.625\topskip \@minus .95\topskip
998   \def\@texttop{\vskip \z@ \@plus -0.625\topskip \@minus -0.95\topskip}
999 }

```

The second automatic processing for widows and orphans is provided through Max Chernoff's `lua-widow-control` package [1]. It adjusts interword spacing to reduce and remove orphans, widows and broken hyphenation. It requires Lua \LaTeX but ensures flush page bottoms. It can be enabled via the `settings/widow-control/chernoff` option.

```

1000 \bool_if:NT \l__phimisci_settings_luawidow_bool
1001 {
1002   \sys_if_engine luatex:TF
1003   {
1004     \RequirePackage{lua-widow-control}
1005     \lwcsetup
1006     {
1007       emergencystretch=\int_use:N
1008                               \l__phimisci_settings_emergencystretch_dim
1009     }
1010   }
1011   {
1012     \msg_fatal:nnn { phimisci } { wrong-tex-engine } { luatex }
1013   }
1014 }

```

Footnotes should break across pages only if everything else fails. Set a high penalty to accomplish this. Sometimes, breaking a footnote is more desirable than having a sub-optimal break in the main text.

```

1015 \interfootnotelinepenalty=\int_use:N \l__phimisci_settings_footnote_penalty_int

```

We set `\emergencystretch` for automatic treatment of overful lines. It should be noted that overful lines can also be treated using better `\hyphenation` patterns.

```

1016 \emergencystretch=\dim_use:N \l__phimisci_settings_emergencystretch_dim

```

\LaTeX inserts a special spacing after punctuation by default. If requested by the user, use the usual inter-word space after punctuation.

```

1017 \bool_if:NF \l__phimisci_settings_extra_sentence_spacing_bool
1018 { \frenchspacing }

```

4.6 Float layout

All floats should be centered and use our custom font for float contents.

```

1019 \addto\@floatboxreset

```



```

1020  {%
1021  \centering%
1022  \usekomafont{PhiMiSciTableBody}%
1023  }

```

We would like the captions to be of width `\columnwidth`. This will not change the default behaviour of regular floats, it changes the caption in two-column floats.

```

1024 \setcapwidth{111mm}

```

Captions should not have hanging indent:

```

1025 \setcapindent{0pt}

```

`\heavyrulewidth` `\lightrulewidth` We adjust the width of `\toprule` and `\bottomrule` from booktabs. The width of `\midrule` is given as 5/8 of the other rules

```

1026 \dim_set:Nn \heavyrulewidth { 0.25bp }
1027 \dim_set:Nn \lightrulewidth { 0.15625bp }
1028 \ExplSyntaxOff

```

`\arrayrulecolor` We set the color of rules in tables to our journal colors.

```

1029 \arrayrulecolor{PhiMiSciHeadingBlue}

```

`\topfraction` `\dots` More liberal values for the placement of floats. These liberal values increase the likelihood that a float can be placed near the location desired by the author(s).

```

1030 \renewcommand{\topfraction}{.9}
1031 \renewcommand{\dbltopfraction}{.8}
1032 \renewcommand{\bottomfraction}{.8}
1033 \renewcommand{\textfraction}{.1}
1034 \renewcommand{\floatpagefraction}{.75}
1035 \renewcommand{\dblfloatpagefraction}{.75}
1036 \setcounter{topnumber}{9}
1037 \setcounter{bottomnumber}{9}
1038 \setcounter{totalnumber}{20}
1039 \setcounter{dbltopnumber}{9}

```

4.7 Indentation after lists and quotations

We add a hook to the end of quote, quotation, itemize, description and enumerate to suppress indentation in the following paragraphs.

```

1040 \AfterEndEnvironment{quote}{\par\@afterindentfalse\@afterheading}
1041 \AfterEndEnvironment{quotation}{\par\@afterindentfalse\@afterheading}
1042 \AfterEndEnvironment{verse}{\par\@afterindentfalse\@afterheading}

```

```

1043 \AfterEndEnvironment{itemize}{\par\@afterindentfalse\@afterheading}
1044 \AfterEndEnvironment{enumerate}{\par\@afterindentfalse\@afterheading}
1045 \AfterEndEnvironment{description}{\par\@afterindentfalse\@afterheading}

```

4.8 Bibliography layout

We allow (almost) no breaking within entries in the list of references, and we are especially tolerant regarding interword spacing to avoid overfull lines. These tolerances follow a post by Enrico Gregorio on TeX.SE.

```

1046 \defbibheading { bibliography } [ \refname ]
1047 {
1048   \addsec{ #1 }
1049   \clubpenalty=10000
1050   \@clubpenalty\clubpenalty
1051   \widowpenalty=10000
1052   \emergencystretch=3em
1053 }
1054 \AtBeginBibliography{\usekomafont{footnote}}
1055 \bibhang=6.25mm

```

In citations, we prefer to have a non-breakable thin space between “p.” and the cited page number.

```

1056 \RenewDocumentCommand {\ppspace} {} {\addnbthinspace}

```

5 Document elements

5.1 The document title

`\maketitle` We customise the document title page to our layout. A title page following this layout is produced through `\maketitle` in papers.

```

1057 \ExplSyntaxOn
1058 \RenewDocumentCommand {\maketitle} {}
1059 {%
1060   {
1061     \thispagestyle{plain.scrheadings}

```

The header, including journal logo, title, volume number, and publication year, is only printed for some publication stages. It is printed for *final* and *draft* documents, but not for stages *preparation* and *submission*.

```

1062   \bool_if:NT \l__phimisci_output_publication_header_footer_bool
1063   {
1064     \vspace*{-16.5mm}
1065     \raggedright

```

The following box contains the journal title, the volume, and publication year.

```

1066     \parbox[c]
1067     {
1068         \dim_eval:n
1069         {
1070             \columnwidth - 1cm - \l__phimisci_logo_width_dim
1071         }
1072     }
1073     {
1074         \vskip\baselineskip
1075         \raggedright
1076         \addfontfeature{LetterSpace=2.0}
1077         \normalfont\normalsize
1078         \color{PhiMiSciHeadingBlue}
1079         {
1080             \bfseries\fontsize{20bp}{24bp}\selectfont
1081             \tl_use:N \l__phimisci_journal_short_name_tl \par
1082         }
1083         {
1084             \fontsize{11.2bp}{16.8bp}\selectfont
1085             \tl_use:N \l__phimisci_journal_name_tl
1086             \space |\space
1087             \tl_use:N \l__phimisci_locale_volume_tl
1088             \space
1089             \tl_use:N \l_phimisci_volume_tl
1090             \space |\space
1091             \int_use:N \l_phimisci_publication_year_int\par
1092         }
1093     }
1094     \hskip 1cm

```

The following box contains the journal logo. If a logo is not specified, the box remains empty and a warning is issued to the user.

```

1095     \parbox[c]{\dim_use:N \l__phimisci_logo_width_dim}
1096     {
1097         \tl_if_blank:VTF \l__phimisci_branding_logo_tl
1098         {
1099             \msg_warning:nn { phimisci } { missing-logo-url }
1100         }
1101         {
1102             \includegraphics
1103             [ width=\dim_use:N \l__phimisci_logo_width_dim ]
1104             { \tl_use:N \l__phimisci_branding_logo_tl }
1105         }
1106     }
1107 }
1108 }

```

The command `\and` to separate authors is merely a hook for our internal processing (see our custom `\author` and auxiliary functions). We deactivate it to avoid the effects of its standard definition.

```

1109     \let\and\relax
1110     \vskip 2.66\baselineskip

```

After a vertical skip, print the document title and subtitle (if given).

```
1111 {
1112   \usekomafont{title}
1113   {
1114     \@title
1115     \par\vskip.5\baselineskip
1116   }
1117 }
1118 {
1119   \ifx\@subtitle\@empty
1120   \else
1121     \usekomafont{subtitle}\@subtitle\par\vskip.5\baselineskip
1122     \fi
1123 }
1124 \vskip .5em
```

Output the author data, including affiliations. `\PhiMiSci@OutputAuthorData` also outputs information about the special issue and/or book symposium, in the article is part of one. Various `\enlargethispage` commands ensure there is enough space for the footer.

```
1125 \PhiMiSci@OutputAuthorData{}
1126 \enlargethispage{-2.5\baselineskip}
```

The right column on the title page, started by a `\pagebreak`, contains the abstract and keywords.

```
1127 \newpage
1128 \vspace*{3.25\baselineskip}
1129 \enlargethispage{-4\baselineskip}
1130 \PhiMiSci@OutputMetadata{}
```

Finally, ensure that the paper does not begin with a paragraph indent.

```
1131 \@afterindentfalse\@afterheading
1132 }
```

5.2 Epigraphs

Epigraphs can be inserted at any point of the document text using `\dictum [source]{text}`. The command is inherited from `scartcl` [2, §3.17].

The optional [*source*] can contain a citation command. The following settings are adjustments to fit the needs of the journal:

```
1133 \RenewDocumentCommand { \dictumrule } {} { \smallskip }
```

5.3 Block quotes

Block quotes use a particular font in our layout. This setting is used for the abstract, too.

```
1134 \AddToHook { env/quote/begin } { \usekomafont{PhiMiSciQuote} }
1135 \AddToHook { env/quotation/begin } { \usekomafont{PhiMiSciQuote} }
```

5.4 Lists

In our layout, list labels are snug with the `\parindent`, which we achieve using the `enumitem` package.

```
1136 \setlist[enumerate, itemize]
1137 {
1138     labelindent=\parindent,
1139     leftmargin=*
1140 }
```

5.5 Headers & footers

There is a line between the header and paper content (though we use a custom line, see `\PhiMiSci@HeaderSepLine`). The title page has an enlarged foot height to accommodate citation recommendation and license information.

```
1141 \KOMAOptions
1142 {
1143     headsepline = true
1144 }
1145 \AddToLayerPageStyleOptions{plain.scrheadings}
1146 {
1147     onselect =
1148     {
1149         \setlength { \footheight } { 3.25\baselineskip }
1150     }
1151 }
```

`\PhiMiSci@OneColumnLine` A helper macro that generates a line spanning exactly the width of a column, or `\columnwidth`. Its thickness can be set via settings/head-rule-thickness. The line is spread evenly to height and depth of the line.

```
1152 \NewDocumentCommand{\PhiMiSci@OneColumnLine} {}
1153 {
1154     \vrule \@width \dimexpr \columnwidth \relax
1155             \@height .5 \dimexpr \l__phimisci_head_rule_height_dim \relax
1156             \@depth .5 \dimexpr \l__phimisci_head_rule_height_dim \relax
1157 }
```

`\PhiMiSci@HeaderSepLine` Places two lines, each spanning a column. The margin between the columns is filled with white space, and the current page number is centered. “Font” options, such as colour of the line, are taken from `\headsepline`. See `\PhiMiSci@OneColumnLine` for configuration of the stroke thickness.

```
1158 \NewDocumentCommand{\PhiMiSci@HeaderSepLine} {}
1159 {
1160     \group_begin:
1161     \usekomafont{headsepline}
```

```

1162     {
1163       \vbox spread \z@
1164       {
1165         \PhiMiSci@OneColumnLine{}
1166         \hfill
1167         \lower .58ex \hbox{\thepage}
1168         \hfill
1169         \PhiMiSci@OneColumnLine{}
1170         \par
1171       }
1172     }
1173 \group_end:
1174 }

```

Configure the page style to use `\PhiMiSci@HeaderSepLine` for KOMA's headsepLine.

```

1175 \DeclareLayer[
1176   background,
1177   hoffset=\sls@leftmargin{head},
1178   voffset=\sls@topmargin
1179     + \headheight
1180     - \ht\strutbox
1181     + \dimexpr \l__phimisci_head_rule_height_dim
1182     \relax,
1183   width=\sls@headwidth,
1184   height=0pt,
1185   align=tl,
1186   contents={{
1187     \normalfont
1188     \usekomafont{pageheadfoot}
1189     {
1190       \usekomafont{pagehead}
1191       {
1192         \PhiMiSci@HeaderSepLine{}
1193       }
1194     }
1195   }}
1196 ]{scrheadings.head.below.line}

```

The optional arguments for `\cfoot` and `\chead` determine the footer and header on pages with the style `plain` (typically the title page only). The header and footer for all other pages is determined by the mandatory argument of both commands. Note that the title page does not have a header, but is configured with manual spacing due to the flexibility needed.

```

1197 \cfoot[\PhiMiSci@Footer*{}]{\PhiMiSci@Footer{}}
1198 \chead[]{\PhiMiSci@Header{}}

```

`\PhiMiSci@Footer`
`\PhiMiSci@Footer*`

Two macros for the content of the footer. The starred variant is intended to produce the footer on the title page. The base variant produces the footer on all other pages — which is empty except in the draft stage.

```

1199 \NewDocumentCommand {\PhiMiSci@Footer} { s }
1200   {%
1201     \IfBooleanTF {#1}
1202     {
1203       \bool_if:NTF \l__phimisci_output_publication_header_footer_bool
1204       {
1205         \begin{minipage} [b] {\columnwidth}
1206           \usekomafont{\PhiMiSciFooter}
1207           \fullcite{phimisci-current-article}
1208         \end{minipage}\hfill
1209         \begin{minipage} [b] {\columnwidth}
1210           \usekomafont{\PhiMiSciFooter}
1211           \bool_if:NT \l__phimisci_output_rights_bool
1212           {
1213             \copyright{}~\tl_use:N \l__phimisci_copyright_holder_tl.~
1214             \tl_use:N \l__phimisci_copyright_tl
1215           }
1216         \end{minipage}
1217       }
1218     {
1219       \tl_use:N \l__phimisci_submission_footer_tl
1220     }
1221   }
1222   {
1223     \bool_if:NT \l__phimisci_output_draft_footer_bool
1224     {
1225       \vskip 1cm
1226       \tl_use:N \l__phimisci_draft_footer_tl
1227     }
1228   }
1229 }

```

\PhiMiSci@Header

A macro to produce the header on pages that are not plain, typically all pages except the title page. The output differs depending on publication stage — author names and journal volume information are not given for stages submission and preparation. A generic text is placed instead, informing the reader about the article's status.

```

1230 \NewDocumentCommand {\PhiMiSci@Header} { }
1231   {%
1232     \bool_if:NTF \l__phimisci_output_publication_header_footer_bool
1233     {
1234       \tl_use:N \l__phimisci_journal_short_name_tl
1235       \c_space_token | \c_space_token
1236       \tl_use:N \l__phimisci_locale_volume_tl
1237       \c_space_token
1238       \tl_use:N \l__phimisci_volume_tl
1239     }
1240     {
1241       \tl_use:N \l__phimisci_submission_footer_tl
1242     }
1243     \hfill
1244     \Ifthispageodd

```

```

1245     {
1246     \tl_use:N \l_phimisci_short_document_title_tl
1247     }
1248     {
1249     \tl_use:N \l_phimisci_header_authors_tl
1250     }
1251 }

```

5.6 ORCID logo settings

orcidlogocol The color used to print the ORCID logo. ORCID’s policy prescribes this can be either black or the ORCID green, HTML code A6CE39. We use this green by default.

```

1252 \definecolor{orcidlogocol}{HTML}{\tl_use:N \l__phimisci_orcid_color_tl}

```

\@OrigHeightRecip The ORCID logo is slightly enlarged to match the layout of our printing of authors on the title page.

```

1253 \renewcommand{\@OrigHeightRecip}{0.006}

```

5.7 Paragraph counting in the margin

\PhiMiSciParagraphNumber A dummy function to put paragraph numbers in the page margin. This feature is not yet fully implemented and tested.

```

1254 \NewDocumentCommand{\PhiMiSciParagraphNumber}{m}
1255 {
1256   \makenote{ #1 }
1257 }

```

5.8 Automatic paragraph numbering

Passages in journal articles have traditionally been identified by their page number. As journals move to publication on the web alongside PDF distribution, a different mechanic becomes necessary to identify passages in non-paginated media, such as web sites. The predominant approach has been to number paragraphs instead.

The `phimisci` class offers mechanisms for automatic (as well as manual) paragraph numbering. The classic implementation of this was described by Nicola Talbot [5, §6.5]. This method uses `\everypar`, a command that does not appear to be advisable any longer [4, pp. 1–3]. Instead, we implement a similar mechanism through L^AT_EX’s new hook management [3, 4].

Note: The implementation below is preliminary and subject to change in future versions of our class. It is also not sufficiently tested for production use.

The environment `PhiMiSciNumberedParagraphs` automatically numbers paragraphs according to the template `\PhiMiSci@PrintParNum`. The `phimisci` class takes great care to exclude certain elements from paragraph counting, such as the document's header and footer (via `\PhiMiSci@DetectKomaHeader`) and from a pre-defined list of environments (using `\PhiMiSci@ParNumSwitch`) as well as the sectioning commands (`\section`, `\subsection` and `\subsubsection`). The user can extend this list in case additional environments should be included:

```
\PhiMiSciSettings { settings / paragraph-numbering-excluded-objects
= <list>}
```

`\l_phimisci_parnum_excluded_objects_base_tl`

The following environments are excluded by default and do not need to be added:

- lists (`list`, `enumerate`, `itemize`, `description`)
- quotes (`quote`, `quotation`)
- floats (`figure`, `table`)
- tabbing
- computer code (`verbatim`, `lstlisting`)

By convention, these objects are either identified by their own identifier or through the paragraph that precedes them.

`PhiMiSci@Paragraph`

A paragraph counter. It is set to reset at every section, so that paragraphs are not counted throughout the paper, but separately for each section.

```
1258 \newcounter{ PhiMiSci@Paragraph } [ section ]
```

`\PhiMiSci@PrintParNum`

Provides a template to print the current value of `PhiMiSci@Paragraph`.

```
1259 \NewDocumentCommand {\PhiMiSci@PrintParNum} {}
1260 {
1261   \makebox[0pt][r]{
1262     \color{gray}
1263     \oldstylenums{\thePhiMiSci@Paragraph\hspace*{1.5em}}
1264   }
1265 }
```

`\PhiMiSci@AddParNum`

Functions that add and remove counting to the hook `para/begin`.

`\PhiMiSci@RemoveParNum`

```
1266 \NewDocumentCommand {\PhiMiSci@AddParNum} {}
1267 {
1268   \AddToHook {para/begin} [PhiMiSciParNumber]
```

```

1269     {
1270       \bool_if:NF \l__phimisci_koma_head_mode_bool
1271       {
1272         \refstepcounter{PhiMiSci@Paragraph}
1273         \PhiMiSci@PrintParNum{}
1274       }
1275     }
1276   }
1277
1278 \NewDocumentCommand {\PhiMiSci@RemoveParNum} {}
1279 {
1280   \RemoveFromHook {para/begin} [PhiMiSciParNumber]
1281 }

```

\PhiMiSci@ParNumSwitch \PhiMiSci@ParNumSwitch {*<comma separated list>*}

Functions to add hooks from the list of objects that are ignored for counting.

```

1282 \NewDocumentCommand {\PhiMiSci@ParNumSwitch} {m}
1283 {
1284   \AddToHook { #1/before } [PhiMiSciParNumber] { \PhiMiSci@RemoveParNum{} }
1285   \AddToHook { #1/after } [PhiMiSciParNumber] { \PhiMiSci@AddParNum{} }
1286 }

```

\PhiMiSci@ParNumSwitchDisable \PhiMiSci@ParNumSwitchDisable {*<comma separated list>*}

Functions to remove hooks from the list of objects that are ignored for counting.

```

1287 \NewDocumentCommand {\PhiMiSci@ParNumSwitchDisable} {m}
1288 {
1289   \RemoveFromHook { #1/before } [PhiMiSciParNumber]
1290   \RemoveFromHook { #1/after } [PhiMiSciParNumber]
1291 }

```

\PhiMiSci@ParNumSwitchKOMA \PhiMiSci@ParNumSwitchKOMA {*<KOMA hook>*}

Functions to add and remove hooks.

```

1292 \NewDocumentCommand {\PhiMiSci@ParNumSwitchKOMA} {m}
1293 {
1294   \AddtoDoHook { heading/begingroup/#1 } { \PhiMiSci@RemoveParNum{} }
1295   \AddtoDoHook { heading/endgroup/#1 } { \PhiMiSci@AddParNum{} }
1296 }

```

\PhiMiSci@DetectKomaHeader A macro that is executed in scartcl's header and footer. It prevents the paragraphs created there from being counted.

```

1297 \NewDocumentCommand{\PhiMiSci@DetectKomaHeader} {}
1298 {
1299   \bool_set_true:N \l__phimisci_koma_head_mode_bool
1300 }

```

An environment for encapsulating content in which the paragraphs are counted. Initialization is made through commands previously defined in this section.

```

1301 \NewDocumentEnvironment { PhiMiSciNumberedParagraphs } {}
1302   {%
1303     \tl_concat:NNN \l__phimisci_parnum_excluded_objects_combined_tl
1304                   \l__phimisci_parnum_excluded_objects_base_tl
1305                   \l__phimisci_parnum_excluded_objects_tl
1306     \parindent=0pt
1307     \parskip=.5\baselineskip
1308     \PhiMiSci@AddParNum{}
1309     \PhiMiSci@ParNumSwitch{env/quote}
1310     \PhiMiSci@ParNumSwitch{env/quotation}
1311     \PhiMiSci@ParNumSwitch{env/table}
1312     \PhiMiSci@ParNumSwitch{env/figure}
1313     \PhiMiSci@ParNumSwitch{env/list}
1314     \PhiMiSci@ParNumSwitch{env/enumerate}
1315     \PhiMiSci@ParNumSwitch{env/itemize}
1316     \PhiMiSci@ParNumSwitch{env/description}
1317     \PhiMiSci@ParNumSwitch{env/lstlisting}
1318     \PhiMiSci@ParNumSwitch{env/verbatim}
1319     \PhiMiSci@ParNumSwitch{env/tabbing}
1320     \PhiMiSci@ParNumSwitchKOMA{section}
1321     \PhiMiSci@ParNumSwitchKOMA{subsection}
1322     \PhiMiSci@ParNumSwitchKOMA{subsubsection}
1323   }
1324   {%
1325     \PhiMiSci@RemoveParNum{}
1326     \PhiMiSci@ParNumSwitchDisable{env/quote}
1327     \PhiMiSci@ParNumSwitchDisable{env/quotation}
1328     \PhiMiSci@ParNumSwitchDisable{env/table}
1329     \PhiMiSci@ParNumSwitchDisable{env/figure}
1330     \PhiMiSci@ParNumSwitchDisable{env/list}
1331     \PhiMiSci@ParNumSwitchDisable{env/enumerate}
1332     \PhiMiSci@ParNumSwitchDisable{env/itemize}
1333     \PhiMiSci@ParNumSwitchDisable{env/description}
1334     \PhiMiSci@ParNumSwitchDisable{env/lstlisting}
1335     \PhiMiSci@ParNumSwitchDisable{env/verbatim}
1336     \PhiMiSci@ParNumSwitchDisable{env/tabbing}
1337   }
1338 \ExplSyntaxOff
1339 \endclass

```

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