

The `autoaffil` package*

Philip Bittihn
`philip@bittihn.de`

2026/06/06

Abstract

`autoaffil` provides the author/affiliation layout style common in physics and related fields: all authors in a single block with superscript numbers linking each name to a list of affiliations printed below—the style native to `revtex4-2` with the `superscriptaddress` option, and familiar from journals such as *Physical Review Letters*. The package brings this style to the standard `article` class and compatible classes, with automatic deduplication: authors and affiliations are declared individually in the preamble; identical affiliation strings are assigned the same number; numbers are assigned in order of first appearance; and `\maketitle` outputs the complete block without further intervention.

Contents

| | | |
|----------|---|----------|
| 1 | Introduction | 2 |
| 2 | Installation | 2 |
| 2.1 | From a <code>T_EX</code> distribution | 2 |
| 2.2 | Manual installation | 2 |
| 3 | Usage | 2 |
| 3.1 | Quick start | 2 |
| 3.2 | Declaring authors and affiliations | 3 |
| 3.3 | Package options | 4 |
| 3.4 | Output commands | 4 |
| 3.5 | Customisation hooks | 4 |
| 3.6 | Compatibility notes | 5 |
| 4 | Implementation | 5 |
| 4.1 | Package identification and dependencies | 5 |
| 4.2 | Package options | 6 |
| 4.3 | Customisation hooks | 6 |
| 4.4 | Counters and data storage | 7 |
| 4.5 | Affiliation lookup and registration | 7 |
| 4.6 | User-level declaration commands | 8 |

*This file has version v1.0, last revised 2026/06/06.

| | | |
|------|--|----|
| 4.7 | Range compression | 9 |
| 4.8 | Superscript materialisation | 10 |
| 4.9 | Author list typesetting | 11 |
| 4.10 | Automatic insertion into <code>\maketitle</code> | 13 |

1 Introduction

The author/affiliation layout style used in physics and related fields places all author names in a single block with superscript numbers linking each name to a list of affiliations printed below. This is the style native to `revtex4-2` with the `superscriptaddress` option, and familiar from journals such as *Physical Review Letters*.

Reproducing this style in the standard `article` class has traditionally required either hand-numbering (tedious and error-prone) or the `authblk` package (which still requires manual deduplication and can interact badly with some journal styles).

`autoaffil` takes a different approach: authors and affiliations are declared separately and identically-worded affiliations are *automatically* assigned the same number. The output block is injected into `\maketitle` in a way that is robust across document classes. The only external dependency is `etoolbox`, which is standard in any modern \TeX distribution.

2 Installation

2.1 From a \TeX distribution

If `autoaffil` is included in your \TeX distribution (TeX Live, MiK \TeX), no manual installation is needed:

```
tlmgr install autoaffil (TeX Live)
```

2.2 Manual installation

1. Run `latex autoaffil.ins` to extract `autoaffil.sty`.
2. Place `autoaffil.sty` in a directory searched by \LaTeX . For a single project, the same directory as your `.tex` file suffices. For a system-wide installation, place it under your local `texmf` tree at `tex/latex/autoaffil/autoaffil.sty` and run `texhash` (or `mktexlsr`).

3 Usage

3.1 Quick start

```
\documentclass{article}
\usepackage[ranges,superaftercomma]{autoaffil}

\autoauthor{Alice Anderson}
\autoaffil{MIT, Cambridge MA}
\autoaffil{Princeton University}
\autoauthor[*]{Bob Brown}
```

```

\autoaffil{MIT, Cambridge MA} % same text -> same number (1)
\autoaffil{CERN, Geneva}
\autoauthor[*,\dagger]{Carol Chen}
\autoaffil{CERN, Geneva} % deduplicated: same number as Bob's
\autoremark{*}{Equal contribution.}
\autoremark{\dagger}{Corresponding: carol@example.com}

\title{My Paper}
\begin{document}
\maketitle
...
\end{document}

```

With `[superaftercomma]`, the comma precedes the superscript; with `[ranges]`, runs of three or more consecutive numbers compress to a range (none occur here). The output looks like:

Alice Anderson,^{1,2} Bob Brown,^{1,3,*} Carol Chen^{3,*,†}

¹ MIT, Cambridge MA
² Princeton University
³ CERN, Geneva
* Equal contribution.
† Corresponding: carol@example.com

(Affiliation numbers appear before extra symbols like `*` and `†`. Bob's affiliations 1 and 3 are non-consecutive so they stay as `1,3`; with `[ranges]` an author whose affiliations are 1, 2, and 3 would instead show `1--3`.)

3.2 Declaring authors and affiliations

`\autoauthor` `\autoauthor[<extra>]{<name>}` declares one author. Authors are output in the order they are declared. The optional argument *<extra>* is a comma-separated list of math-mode symbols that are appended as extra superscripts *after* the affiliation numbers (e.g. `*`, `\dagger`, `\ddagger`).

`\autoaffil` `\autoaffil{<text>}` attaches one affiliation to the most recently declared author. Repeat for each affiliation of that author. If *<text>* is identical—exact string match—to a previously registered affiliation, no new number is allocated; the existing number is reused. Deduplication is therefore automatic and does not require any manual numbering or cross-referencing.

Tip for multi-author documents. To guarantee string identity and keep affiliation text in one place, predefine each affiliation as a command in the preamble:

```

\newcommand{\MIT}{\autoaffil{MIT, Cambridge MA}}
\newcommand{\CERN}{\autoaffil{CERN, Geneva}}

```

Then declare authors as:

```

\autoauthor{Alice Anderson} \MIT \Princeton
\autoauthor{Bob Brown}      \MIT \CERN

```

Any future change to an affiliation string needs to be made in exactly one place and cannot accidentally break deduplication.

`\autoremark` `\autoremark{⟨symbol⟩}{⟨text⟩}` defines a special remark entry, typically for equal contribution, corresponding author information, or similar annotations. `⟨symbol⟩` is math-mode content (`*`, `\dagger`, `\ddagger`, ...). Remarks are output in definition order by `\printremarks`.

3.3 Package options

Options may be freely combined:

`\usepackage[ranges,superaftercomma,nobreak]{autoaffil}`

ranges Compress runs of three or more consecutive affiliation numbers in a superscript into an en-dash range. For example, an author with affiliations 1, 2, 3 gets the superscript ^{1–3} instead of ^{1,2,3}. Pairs and isolated singles are not compressed. Multiple disjoint ranges in a single superscript are supported (e.g. ^{1–3,5–7}).

superaftercomma Place the affiliation superscript *after* the inter-author comma rather than before it (the default). This matches the style used by the *Physical Review* family of journals (revtex4-2 style).

nobreak Wrap each author-name + superscript unit in `\mbox` so that $\mathrm{T}_{\mathrm{E}}\mathrm{X}$ cannot break a line in the middle of one author’s entry. The spaces between author entries remain valid break points. This option is most useful for short author lists or narrow typeblocks.

manual Suppress automatic insertion of the author block into `\maketitle`. The three output commands (see §3.4) must then be called explicitly by the user. This is useful for documents that need unusual placement of author information.

3.4 Output commands

In the default (auto) mode, `\maketitle` outputs the full block automatically. In [manual] mode—or for unusual placement requirements—the three components can be placed individually:

`\printauthors` `\printauthors` typesets the author list as a single paragraph: `\aaauthorfont`-formatted names separated by `\aaauthorsep` and `\aaauthorspace`, with superscripted affiliation numbers.

`\printaffils` `\printaffils` typesets the numbered affiliation list, one entry per line, each preceded by its number in a superscript.

`\printremarks` `\printremarks` typesets the special remarks declared with `\autoremark`, one per line, each preceded by its symbol in a superscript. If no remarks were declared, this command produces no output.

3.5 Customisation hooks

The following hooks can be redefined after `\usepackage{autoaffil}`:

`\aaauthorfont` `\aaauthorfont{⟨name⟩}`: formatting applied to each author name. Default:

`\textbf{\langle name \rangle}` (bold).
 Example: `\renewcommand\aaauthorfont[1]{\textit{\#1}}`

`\aaauthorsep` `\aaauthorsep`: separator token(s) emitted between consecutive author entries. Default: `,` (comma).
 Example: `\renewcommand\aaauthorsep{;}`

`\aaauthorspace` `\aaauthorspace`: breakable space emitted between consecutive author entries (after the separator in default mode, or after the superscript in `superaftercomma` mode). *Must* be a breakable space so that long author lists wrap correctly. Default: `\hspace{0.5em plus 0.2em minus 0.1em}`
 Example: `\renewcommand\aaauthorspace{\ }`

3.6 Compatibility notes

- **Deduplication is exact string comparison.** `\ifx` is applied to `\edef`-expanded strings. `MIT` and `MIT` (trailing space) are treated as different affiliations. The recommended way to ensure consistency is to predefine each affiliation as a command: `\newcommand{\MIT}{\autoaffil{MIT, Cambridge MA}}` — there is then one authoritative spelling and the string identity is guaranteed automatically (see Section 3.2).
- **Auto mode compatibility.** Auto mode works with any document class whose `\@maketitle` typesets `\@author`—this includes the standard `article` class, essentially all standard L^AT_EX classes, and the large majority of journal and preprint style files. The output block is injected via `\author{...}` in `\AtBeginDocument`, wrapped in a `\parbox[t]{\textwidth}` to allow paragraph-mode commands inside the LR-mode tabular cells that many classes use around `\@author`. Manual mode (`\printauthors`, `\printaffils`, `\printremarks`) works with any class whatsoever.
- **hyperref PDF metadata.** `\@author` is used by `hyperref` to set the PDF Author metadata field. With the `parbox` approach this field will contain L^AT_EX markup. Users who need clean metadata should call `\hypersetup{pdfauthor={...}}` explicitly.
- **[manual] mode.** In auto mode, `\@author` is set to empty (via `\author{}`); classes that insert a non-zero-height strut in the author tabular cell may show a small blank space at the title position. This is harmless since the user controls placement manually.

4 Implementation

Open the `package` docstrip guard. Everything between this and the closing guard is extracted to `autoaffil.sty`.

1 `*package`

4.1 Package identification and dependencies

We require L^AT_EX 2_ε and load `etoolbox` (used indirectly via `\AtBeginDocument` and `\apptocmd`; its presence also ensures availability of `\newrobustcmd` for potential future use).

```

2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesPackage{autoaffil}[2026/06/06 v1.0 Automatic affiliation footnotes (PB)]
4 \RequirePackage{etoolbox}

```

4.2 Package options

Four boolean flags. All default to *false*; the corresponding option sets the flag to *true*.

```

5 % ---- package options ----
6
7 % ranges: compress runs of 3 or more consecutive affiliation numbers in
8 % a superscript list into a range n--m; pairs and singles are unchanged.
9 \newif\ifaaf@ranges
10 \aaf@rangesfalse
11 \DeclareOption{ranges}{\aaf@rangestrue}
12
13 % superaftercomma: place superscripts after the inter-author comma
14 % (revtex4-2 style) rather than before it.
15 \newif\ifaaf@superaftercomma
16 \aaf@superaftercommafalse
17 \DeclareOption{superaftercomma}{\aaf@superaftercommatrue}
18
19 % nobreak: prevent line breaks within a single author's name+superscript unit.
20 \newif\ifaaf@nobreak
21 \aaf@nobreakfalse
22 \DeclareOption{nobreak}{\aaf@nobreaktrue}
23
24 % manual: suppress automatic insertion of the author/affiliation/remarks block
25 % into \maketitle. Use \printauthors, \printaffils, and \printremarks to place
26 % the blocks manually. Without this option the blocks are inserted
27 % automatically by \maketitle.
28 \newif\ifaaf@manual
29 \aaf@manualfalse
30 \DeclareOption{manual}{\aaf@manualtrue}
31
32 \ProcessOptions\relax

```

4.3 Customisation hooks

```

\aaauthorfont The three public customisation hooks, all defined with \newcommand so users can
\aaauthorsep  redefine them with \renewcommand.
\aaauthorspace 33 % =====
34 % User-customisable hooks for \printauthors.
35 % Redefine any of these after \usepackage{autoaffil}.
36 %
37 % \aaauthorfont -- applied to each author name as \aaauthorfont{Name}.
38 % Default: \textbf (bold).
39 %
40 % \aaauthorsep -- separator emitted between consecutive author entries.
41 % Default: , (comma).
42 % Example: \renewcommand\aaauthorsep{;}
43 %
44 % \aaauthorspace -- space emitted between consecutive author entries,

```

```

45 % after the separator (default mode) or after the
46 % superscript (superaftercomma mode).
47 % Must be a breakable space so long author lists wrap
48 % correctly. Default: a half-em stretchable glue
49 % (\hspace{0.5em plus 0.2em minus 0.1em}), which is
50 % slightly wider than a normal inter-word space but
51 % allows line breaks just like one.
52 % Example: \renewcommand\aaauthorspace{\ } % plain space
53 % \renewcommand\aaauthorspace{\quad}
54 % =====
55 \newcommand\aaauthorfont[1]{\textbf{#1}}
56 \newcommand\aaauthorsep{,}
57 \newcommand\aaauthorspace{\hspace{0.5em plus 0.2em minus 0.1em}}
58 \makeatletter

```

4.4 Counters and data storage

All data are stored in dynamically-named control sequences following the convention `aaf@⟨type⟩@⟨N⟩`. Four counters track the list sizes; `aaf@i` is a reusable scratch counter used in loops.

| Control sequence | Content |
|--------------------------------|--|
| <code>aaf@authorname@N</code> | name of author N |
| <code>aaf@authorextra@N</code> | extra superscript marks for author N |
| <code>aaf@authormarks@N</code> | comma-separated affiliation numbers for author N |
| <code>aaf@affiltext@N</code> | text of affiliation N |
| <code>aaf@remarksym@N</code> | math-mode symbol for remark N |
| <code>aaf@remarktext@N</code> | text of remark N |

```

59 \newcounter{aaf@naffils}
60 \newcounter{aaf@nauthors}
61 \newcounter{aaf@nremarks}
62 \newcounter{aaf@i}

```

4.5 Affiliation lookup and registration

`\aaf@findaffil \aaf@findaffil{⟨text⟩}` performs a linear search over the registered affiliations for an exact string match via `\ifx` on `\edef`-expanded strings. Sets `\aaf@found` to the matching index, or 0 if not found. The loop terminates early on a match by advancing `aaf@i` to `aaf@naffils`.

```

63 % ---- \aaf@findaffil{text} ----
64 \newcommand\aaf@findaffil[1]{%
65   \def\aaf@found{0}%
66   \setcounter{aaf@i}{0}%
67   \@whilenum\value{aaf@i}<\value{aaf@naffils}\do{%
68     \stepcounter{aaf@i}%
69     \def\aaf@tmp{#1}%
70     \expandafter\ifx\csname aaf@affiltext@\arabic{aaf@i}\endcsname\aaf@tmp
71     \xdef\aaf@found{\arabic{aaf@i}}%
72     \setcounter{aaf@i}{\value{aaf@naffils}}%
73   \fi
74 }%
75 }

```

`\aaf@registeraffil` `\aaf@registeraffil{<text>}` registers an affiliation string, allocating a new sequential number if it has not been seen before. Sets the global `\aaf@curnum` to the (possibly pre-existing) index.

```

76 % ---- \aaf@registeraffil{text} ----
77 \newcommand\aaf@registeraffil[1]{%
78   \aaf@findaffil{#1}%
79   \ifnum\aaf@found=0\relax
80     \stepcounter{aaf@naffils}%
81     \expandafter\gdef\csname aaf@affiltext@\arabic{aaf@naffils}\endcsname{#1}%
82     \xdef\aaf@curnum{\arabic{aaf@naffils}}%
83   \else
84     \xdef\aaf@curnum{\aaf@found}%
85   \fi
86 }

```

4.6 User-level declaration commands

`\autoauthor` Increments `aaf@nauthors`, stores the name and optional extra superscript marks, and initialises the marks list to empty.

```

87 % ---- \autoauthor[extra]{Name} ----
88 \newcommand\autoauthor[2][]{%
89   \stepcounter{aaf@nauthors}%
90   \edef\aaf@aid{\arabic{aaf@nauthors}}%
91   \expandafter\gdef\csname aaf@authorname@\aaf@aid\endcsname{#2}%
92   \expandafter\gdef\csname aaf@authorextra@\aaf@aid\endcsname{#1}%
93   \expandafter\gdef\csname aaf@authormarks@\aaf@aid\endcsname{}%
94 }

```

`\autoaffil` Registers the affiliation (deduplicating if necessary) and appends its index to the current author's comma-separated marks list.

```

95 % ---- \autoaffil{text} ----
96 \newcommand\autoaffil[1]{%
97   \edef\aaf@aid{\arabic{aaf@nauthors}}%
98   \aaf@registeraffil{#1}%
99   \expandafter\let\expandafter\aaf@curmarks\csname aaf@authormarks@\aaf@aid\endcsname
100   \ifx\aaf@curmarks\@empty
101     \expandafter\xdef\csname aaf@authormarks@\aaf@aid\endcsname{\aaf@curnum}%
102   \else
103     \expandafter\xdef\csname aaf@authormarks@\aaf@aid\endcsname{\aaf@curmarks,\aaf@curnum}%
104   \fi
105 }

```

`\autoremark` Appends a remark symbol and text to the remarks list.

```

106 % ---- \autoremark{symbol}{text} ----
107 % Defines a special remark entry (e.g.\ equal contribution, corresponding
108 % author) identified by a math-mode symbol such as * or \dagger.
109 % Remarks are printed in definition order by \printremarks.
110 \newcommand\autoremark[2]{%
111   \stepcounter{aaf@nremarks}%
112   \expandafter\gdef\csname aaf@remarksym@\arabic{aaf@nremarks}\endcsname{#1}%
113   \expandafter\gdef\csname aaf@remarktext@\arabic{aaf@nremarks}\endcsname{#2}%
114 }

```


4.7 Range compression

`\aaf@compress` `\aaf@compress{<comma-list>}` processes a sorted comma-separated list of integers left-to-right, compressing consecutive runs of three or more into en-dash ranges, and stores the result in `\aaf@result`.

The algorithm maintains a *current run* described by three variables: `\aaf@rc@start` (first number), `\aaf@rc@end` (last number), and `\aaf@rc@len` (run length). On each new number: if it is the successor of `\aaf@rc@end` the run is extended; otherwise the run is flushed and a new run is started.

```

115 % =====
116 %   Range compression.
117 %   \aaf@compress{comma-list-of-integers} -> sets \aaf@result
118 % =====
119
120 \def\aaf@dash{\mbox{--}}
121
122 \newcommand\aaf@compress[1]{%
123   \def\aaf@rc@out{}%
124   \def\aaf@rc@start{}%
125   \def\aaf@rc@end{}%
126   \def\aaf@rc@len{0}%
127   \@for\aaf@rc@n:=#1\do{%
128     \expandafter\aaf@rc@process\expandafter{\aaf@rc@n}%
129   }%
130   \ifx\aaf@rc@start\@empty\else\aaf@rc@flush\fi
131   \let\aaf@result\aaf@rc@out
132 }
```

`\aaf@rc@process` Process one entry from the `\@for` loop. The double `\expandafter` pattern forces expansion of the loop variable `\aaf@rc@n` before passing it as an argument, which prevents `\@nil` sentinels (appended internally by `\@for`) from reaching the arithmetic in `\numexpr`.

```

133 \newcommand\aaf@rc@process[1]{%
134   \ifx\aaf@rc@start\@empty
135     \def\aaf@rc@start{#1}%
136     \def\aaf@rc@end{#1}%
137     \def\aaf@rc@len{1}%
138   \else
139     \edef\aaf@rc@succ{\the\numexpr\aaf@rc@end+1\relax}%
140     \edef\aaf@rc@cur{#1}%
141     \ifx\aaf@rc@cur\aaf@rc@succ
142       \def\aaf@rc@end{#1}%
143       \edef\aaf@rc@len{\the\numexpr\aaf@rc@len+1\relax}%
144     \else
145       \aaf@rc@flush
146       \def\aaf@rc@start{#1}%
147       \def\aaf@rc@end{#1}%
148       \def\aaf@rc@len{1}%
149     \fi
150   \fi
151 }
```

`\aaf@rc@flush` Flush the current run to `\aaf@rc@out`. The flush rules are: length 1 \rightarrow

emit the start number; length 2 \rightarrow emit `start,end`; length $\geq 3 \rightarrow$ emit `start\aaferdash end`.

Output is accumulated in `\aaferout` using `\toks` register concatenation to avoid prematurely expanding `\aaferdash` (which expands to `\mbox{--}` and must remain unexpanded until typesetting time).

```

152 \newcommand\aaferflush{%
153   \ifnum\aaferlen=1\relax
154     \edef\aaferpiece{\aaferstart}%
155   \else\ifnum\aaferlen=2\relax
156     \edef\aaferpiece{\aaferstart,\aaferend}%
157   \else
158     \edef\aaferpiece{\aaferstart\noexpand\aaferdash\aaferend}%
159   \fi\fi
160   \ifx\aaferout\@empty
161     \let\aaferout\aaferpiece
162   \else
163     \toks0=\expandafter{\aaferout}%
164     \toks2=\expandafter{\aaferpiece}%
165     \edef\aaferout{\the\toks0,\the\toks2}%
166   \fi
167   \def\aaferstart{%
168 }
```

4.8 Superscript materialisation

`\aaferprepare@marks` Sets `\aaferallmarks` and `\aaferextramarks` to fully materialised literal-token strings for author *<aid>*. When the `ranges` option is active, `\aaferallmarks` is passed through `\aafercompress` and the result is re-materialised via `\toks` (severing any alias chain before the final `\edef`).

Implementation note (the trailing-comma trap): `\edef` must be used (not `\let`) for the initial materialisation. A `\let` alias to a csname whose content was itself built by `\@for` can retain an alias chain that introduces a spurious trailing comma inside a subsequent `$\{...\}$` argument. The `\edef` collapses the chain into literal character tokens, preventing this.

```

169 % =====
170 % \aaferprepare@marks{aid}
171 % Sets \aaferallmarks and \aaferextramarks to fully materialised
172 % literal-token strings.
173 % =====
174 \newcommand\aaferprepare@marks[1]{%
175   \edef\aaferallmarks{\csname aaferauthormarks@#1\endcsname}%
176   \edef\aaferextramarks{\csname aaferauthorextra@#1\endcsname}%
177   \ifaaferanges
178     \ifx\aaferallmarks\@empty\else
179       \aafercompress{\aaferallmarks}%
180       \toks0=\expandafter{\aaferresult}%
181       \edef\aaferallmarks{\the\toks0}%
182     \fi
183   \fi
184 }
```

`\aaferemit@super` Typesets the superscript using the already-materialised `\aaferallmarks` and `\aaferextramarks`. These *must* be set by `\edef` before calling this macro. Ar-

gument passing is deliberately avoided because passing a macro as #1 and then using it in $\$^{#1}$ reintroduces the alias-chain problem described above.

```

185 % =====
186 % \aaf@emit@super
187 % Typesets the superscript using the already-set \aaf@allmarks
188 % and \aaf@extramarks. These MUST already be fully materialised
189 % literal-token strings (set by \edef) before calling this.
190 % =====
191 \newcommand\aaf@emit@super{%
192   \ifx\aaf@allmarks\@empty
193     \ifx\aaf@extramarks\@empty\else $\$^{ \aaf@extramarks}$ \fi
194   \else
195     \ifx\aaf@extramarks\@empty
196        $\$ { \aaf@allmarks}$ %
197     \else
198        $\$ { \aaf@allmarks, \aaf@extramarks}$ %
199     \fi
200   \fi
201 }
```

4.9 Author list typesetting

`\printauthors` Typesets the full author list. Two layout strategies are used depending on the `superaftercomma` option. The `nobreak` option is orthogonal and is handled by the locally-defined `\aaf@unit` wrapper.

superaftercomma layout: Between authors: `\aafauthorspace`. Each non-last author's unit is `name + separator + superscript`; the last author's unit is `name + superscript`. The comma belongs to the current author but the superscript belongs to the *current* author (not deferred).

Default layout: Each unit is `name + superscript`. Between units: `\aafauthorsep` followed by `\aafauthorspace`.

```

202 % ---- \printauthors ----
203 %
204 % Default layout:
205 % \aafauthorfont{Name1}^{m1}\aafauthorsep\aafauthorspace\aafauthorfont{Name2}^{m2}...
206 %
207 % superaftercomma layout:
208 % \aafauthorfont{Name1}\aafauthorsep^{m1}\aafauthorspace\aafauthorfont{Name2}...
209 %
210 % nobreak: each name+superscript unit (including the trailing separator in
211 % superaftercomma mode) is wrapped in \mbox{} so it cannot be broken.
212 % The inter-author space remains a valid break point.
213 %
214 % Implementation note: \aaf@unit{content} wraps content in \mbox{} when
215 % nobreak is active, and is transparent otherwise.
216 %
217 \newcommand\printauthors{%
218   \begingroup
219   \setcounter{aaf@i}{0}%
220   % Set up the unit wrapper: \aaf@unit{tokens} either outputs tokens
221   % directly (no nobreak) or wraps them in \mbox{tokens} (nobreak).
222   \ifaaf@nobreak
223     \def\aaf@unit##1{\mbox{##1}}%
```

```

224 \else
225   \def\aaunit##1{##1}%
226 \fi
227 \ifaaf@superaftercomma
228   %
229   % ---- superaftercomma layout ----
230   %
231   % Each unit is: \aaauthorfont{name}\aaauthorsep^{marks}, wrapped by \aaunit.
232   % The last unit is: \aaauthorfont{name}^{marks} (no trailing sep).
233   % Between units: \aaauthorspace (breakable unless nobreak).
234   %
235   \def\aa@prev@marks{}%
236   \def\aa@prev@extra{}%
237   \def\aa@isfirst{1}%
238   \@whilenum\value{aa@i}<\value{aa@nauthors}\do{%
239     \stepcounter{aa@i}%
240     \edef\aa@aaid{\arabic{aa@i}}%
241     % Emit inter-author space before all but the first author.
242     \ifx\aa@isfirst\@empty
243       \aaauthorspace
244     \fi
245     \def\aa@isfirst{}%
246     % Prepare this author's marks now (needed to build the unit).
247     \aa@prepare@marks{\aa@aaid}%
248     \let\aa@prev@marks\aa@allmarks
249     \let\aa@prev@extra\aa@extramarks
250     % Emit unit: name+sep+super for non-last authors, name+super for the last.
251     \ifnum\aa@aaid<\value{aa@nauthors}%
252       % Not last: unit = name + separator + super.
253       \aa@unit{%
254         \aaauthorfont{\csname aa@authorname@\aa@aaid\endcsname}\aaauthorsep%
255         \let\aa@allmarks\aa@prev@marks
256         \let\aa@extramarks\aa@prev@extra
257         \aa@emit@super
258       }%
259     \else
260       % Last author: unit = name + super (no trailing separator).
261       \aa@unit{%
262         \aaauthorfont{\csname aa@authorname@\aa@aaid\endcsname}%
263         \let\aa@allmarks\aa@prev@marks
264         \let\aa@extramarks\aa@prev@extra
265         \aa@emit@super
266       }%
267     \fi
268   }%
269   %
270 \else
271   %
272   % ---- default layout ----
273   %
274   % Each unit is: \aaauthorfont{name}^{marks}, wrapped by \aaunit.
275   % Between units: \aaauthorsep\aaauthorspace.
276   %
277   \def\aa@sep{}%

```

```

278 \@whilenum\value{aaf@i}<\value{aaf@nauthors}\do{%
279 \stepcounter{aaf@i}%
280 \edef\aafoaid{\arabic{aaf@i}}%
281 \aafosep
282 \aafoprepare@marks{\aafoaid}%
283 \aafounit{%
284 \aafoauthorfont{\csname aaf@authorname@\aafoaid\endcsname}%
285 \aafoemit@super
286 }%
287 \def\aafosep{\aafoauthorsep\aafoauthorspace}%
288 }%
289 \fi
290 \endgroup
291 }

```

`\printaffils` Typesets the numbered affiliation list, one entry per line.

```

292 % ---- \printaffils ----
293 \newcommand\printaffils{%
294 \begingroup
295 \setcounter{aaf@i}{0}%
296 \@whilenum\value{aaf@i}<\value{aaf@naffils}\do{%
297 \stepcounter{aaf@i}%
298 \noindent$\sim\arabic{aaf@i}}$\csname aaf@affiltext@\arabic{aaf@i}\endcsname\par
299 }%
300 \endgroup
301 }

```

`\printremarks` Typesets the special remarks. Produces no output if no remarks were declared.

```

302 % ---- \printremarks ----
303 % Typesets the special remarks defined with \autoremark, one per line,
304 % each preceded by its symbol in a superscript.
305 \newcommand\printremarks{%
306 \begingroup
307 \setcounter{aaf@i}{0}%
308 \@whilenum\value{aaf@i}<\value{aaf@nremarks}\do{%
309 \stepcounter{aaf@i}%
310 \noindent$\sim\csname aaf@remarksym@\arabic{aaf@i}\endcsname}$%
311 \csname aaf@remarktext@\arabic{aaf@i}\endcsname\par
312 }%
313 \endgroup
314 }

```

4.10 Automatic insertion into `\maketitle`

`\aaf@block` `\aafo@block` typesets the complete author/affiliation/remarks block. `\normalfont` and `\normalsize` at the top reset any font or size inherited from the surrounding `\@maketitle` context (some classes wrap `\@author` in bold or a larger size). The vertical skip before remarks section is only inserted when remarks exist.

```

315 % =====
316 % Automatic insertion into \maketitle (disabled by [manual]).
317 %
318 % \aaf@block typesets the complete author/affiliation/remarks block.
319 % \normalfont and \normalsize at the top reset any font inherited

```

```

320 % from the surrounding context in \@maketitle.
321 %
322 % Strategy: set \@author to \aaf@block inside a full-width parbox
323 % via \author{...} in \AtBeginDocument. Every \@maketitle typesets
324 % \@author, so the block appears at the correct location in any
325 % document class without needing to know its internal structure.
326 % The \parbox allows paragraph-mode content (incl. \par, \noindent)
327 % inside tabular cells (LR mode) used by many classes.
328 % =====
329
330 \newcommand\aaf@block{%
331   \normalfont % reset font family/series/shape (some classes apply \bf
332               % or other font commands around \@author in \@maketitle)
333   \normalsize % reset font size
334   \printauthors\par
335   \vskip 0.6em\relax
336   \printaffils
337   \ifnum\value{aaf@nremarks}>0\relax
338     \vskip 0.4em\relax
339     \printremarks
340   \fi
341 }

```

The `\AtBeginDocument` hook either calls `\author{}` (manual mode, to suppress the “No `\author` given” warning) or sets `\@author` to `\aaf@block` inside a full-width top-aligned `\parbox`.

Why `\parbox`: many classes typeset `\@author` inside a tabular c-column (LR mode). Paragraph-mode commands such as `\par` and `\noindent` (used by `\printauthors`, `\printaffils`, `\printremarks`) require paragraph mode. A `\parbox[t]{\textwidth}` provides this sub-environment; `\centering` inside it centres each output line.

Why not `\patchcmd`: an earlier implementation patched `\@maketitle` directly. This requires exact token-level matching of the surrounding context, which varies across classes. Setting `\@author` instead is class-agnostic: every `\@maketitle` implementation typesets `\@author` somewhere, so the block always appears at the correct location.

```

342 \AtBeginDocument{%
343   \ifaaf@manual
344     % Manual mode: call \author{} to suppress the "No \author given"
345     % warning (autoaffil manages author display itself).
346     \author{}%
347   \else
348     % Auto mode: set \@author to our block inside a \parbox[t]{\textwidth}.
349     %
350     % This is the general injection strategy: rather than patching
351     % \@maketitle (which would require exact token-level matching of
352     % the surrounding context, varying across classes), we place our
353     % content directly into \@author. Since every \@maketitle typesets
354     % \@author somewhere, the block always appears at the correct location
355     % regardless of the surrounding structure.
356     %
357     % \parbox[t]{\textwidth} creates a top-aligned paragraph box spanning
358     % the full text width. This lets \printauthors, \printaffils, and

```

```

359 % \printremarks use paragraph-mode commands (such as \par and \noindent)
360 % even when \@author is typeset inside a tabular cell (LR mode).
361 % \centering centres each line within the parbox.
362 \author{%
363     \parbox[t]{\textwidth}{%
364         \centering
365         \aaf@block
366     }%
367 }%
368 \fi
369 }
370
371 \makeatother
    Close the package docstrip guard.
372 </package>

```

Change History

v1.0
 General: Initial public release 1

Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

| Symbols | | |
|-------------------------|--|--|
| \@maketitle . . . | 320, 323, 332, 351, 353 | |
| _ | 52, 107 | |
| A | | |
| \aaf@aid | 90, 91, 92, 93, 97, 99, 101, 103, 240, 247, 251, 254, 262, 280, 282, 284 | |
| \aaf@allmarks | 171, 175, 178, 179, 181, 187, 192, 196, 198, 248, 255, 263 | |
| \aaf@block . . . | <u>315</u> , 365 | |
| \aaf@compress . | <u>115</u> , 179 | |
| \aaf@curmarks | 99, 100, 103 | |
| \aaf@curnum | 82, 84, 101, 103 | |
| \aaf@dash | 120, 158 | |
| \aaf@emit@super . . . | <u>185</u> , 257, 265, 285 | |
| \aaf@extramarks . . . | 171, 176, 188, 193, 195, 198, 249, 256, 264 | |
| \aaf@findaffil . . | <u>63</u> , 78 | |
| \aaf@found . . . | 65, 71, 79, 84 | |
| \aaf@isfirst | 237, 242, 245 | |
| \aaf@manualfalse . . | 29 | |
| \aaf@manualtrue . . . | 30 | |
| \aaf@nobreakfalse . | 21 | |
| \aaf@nobreaktrue . . | 22 | |
| \aaf@prepare@marks . | <u>169</u> , 247, 282 | |
| \aaf@prev@extra . . . | 236, 249, 256, 264 | |
| \aaf@prev@marks . . . | 154, 156, 158, 167 | |
| \aaf@prev@marks . . . | 235, 248, 255, 263 | |
| \aaf@rangesfalse . . | 10 | |
| \aaf@rangetrue . . . | 11 | |
| \aaf@rc@cur . . . | 140, 141 | |
| \aaf@rc@end | 125, 136, 139, 142, 147, 156, 158 | |
| \aaf@rc@flush | 130, 145, <u>152</u> | |
| \aaf@rc@len . . . | 126, 137, 143, 148, 153, 155 | |
| \aaf@rc@n | 127, 128 | |
| \aaf@rc@out | 123, 131, 160, 161, 163, 165 | |
| \aaf@rc@piece . . | 154, 156, 158, 161, 164 | |
| \aaf@rc@process . . | 128, <u>133</u> | |
| \aaf@rc@start | 124, 130, 134, 135, 146, 154, 156, 158, 167 | |
| \aaf@rc@succ . . . | 139, 141 | |

| | | |
|---------------------------|--------------------------|---|
| \aaf@registeraffil . | \aafauthorspace ... | \ifaaf@superaftercomma |
| 76, 98 | .. 33, 205, 208, | 15, 227 |
| \aaf@result 117, 131, 180 | 233, 243, 275, 287 | |
| \aaf@sep .. 277, 281, 287 | \autoaffil 95 | M |
| \aaf@superaftercommafalse | \autoauthor 87 | \maketitle . 25, 27, 316 |
| 16 | \autoremark ... 106, 303 | |
| \aaf@superaftercommatrue | | P |
| 17 | B | \printaffils 25, 292, 336, 358 |
| \aaf@tmp 69, 70 | \bf 331 | \printauthors 25, 34, 202, 334, 358 |
| \aaf@unit . 214, 220, | D | \printremarks .. 25, |
| 223, 225, 231, | \dagger 108 | 109, 302, 339, 359 |
| 253, 261, 274, 283 | \do 67, 127, | |
| \aafauthorfont | 238, 278, 296, 308 | |
| 33, 205, | | Q |
| 208, 231, 232, | | \quad 53 |
| 254, 262, 274, 284 | I | |
| \aafauthorsep | \ifaaf>manual .. 28, 343 | |
| .. 33, 205, 208, | \ifaaf@nobreak . 20, 222 | U |
| 231, 254, 275, 287 | \ifaaf@ranges ... 9, 177 | \usepackage 35 |