

A L^AT_EX document class for the Revista Mexicana de Astronomía y Astrofísica*

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Abstract This document describes the `rmaa` L^AT_EX document class for the journal “Revista Mexicana de Astronomía y Astrofísica”. The macros can be used for

1. Preparing author manuscripts for the journal (including conference proceedings to be published in the “Serie de Conferencias”)
2. Typesetting an entire volume of the journal by inputting the individual article files from a container file. Facilities are included for automatic generation of TOC and Author Index.

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1 The documentation driver file

This is the part that generates the documentation that you may or may not be reading, which is done with the help of the Makefile discussed in section 4.1.

```

1 <*driver>
2 \documentclass{ltxdoc}
3 \usepackage{hyperref}
4 \usepackage{palatino}
5 \EnableCrossrefs \CodelineIndex \RecordChanges
6 \setlength{\parindent}{0pt}
7 \def\MacroFont{\footnotesize\tt}
8 \begin{document} \DocInput{rmaa.dtx} \PrintIndex \PrintChanges \end{document}
9 </driver>

```

2 The implementation

```

10 <*package>
11 \newcommand{\rmaa@version}{3.26}
12 \newcommand{\rmaa@date}{2011/08/15}
13 \newcommand{\rmVersion}{\rmaa@version}
14 \newcommand{\rmDate}{\rmaa@date}
15 \NeedsTeXFormat{LaTeX2e}[1995/06/01]

16 \ProvidesClass{rmaa}[\rmaa@date\space v\rmaa@version\space RMxAA article
17 class]

```

2.1 Option Handling

Declarations that are needed in options

```
18 \newif\if@reviewarticle
19 \@reviewarticlefalse
20 \newif\if@proof
21 \@prooffalse
22 \newif\if@journal
23 \@journaltrue
24 \newif\if@printdates
25 \@printdatesfalse
26 \newif\if@proceedings
27 \@proceedingsfalse
28 \newif\if@manuscript
29 \@manuscripttrue
30 \newif\if@bigfont
31 \@bigfonttrue
32 \newif\if@guide
33 \@guidefalse
34 \newif\if@preprint
35 \@preprintfalse
36 \newif\if@rmtwocol
37 \@rmtwocoltrue
38 \newif\if@biblist
39 \@biblistfalse
40 \newif\if@book
41 \@bookfalse
42 \newif\if@natbib
43 \@natbibtrue
44 \newif\if@rmcite
45 \@rmcitefalse
46 \newif\if@titlevisible
47 \@titlevisibletrue
48 \newif\if@abstractpresent
49 \@abstractpresentfalse
50 \newif\if@printbanner
51 \@printbannerfalse
52 \newif\if@suppressfulladdresses
53 \@suppressfulladdressesfalse
54 \newif\if@newstyle
55 \@newstylefalse
56 \newif\if@debug
57 \@debugfalse
58 \newif\if@boldkeywords
59 \@boldkeywordsfalse
```

The option handling—mainly setting various booleans.

```
60 \DeclareOption{manuscript}{\typeout{Manuscript for referee}
61   \@manuscripttrue\@journalfalse\@rmtwocolfalse
62   \PassOptionsToClass{10pt}{article}}
63 \DeclareOption{bigfont}{\typeout{Big font manuscript requested by Gary
64   Ferland}
65   \@manuscripttrue\@journalfalse\@rmtwocolfalse\@bigfonttrue
66   \PassOptionsToClass{11pt}{article}}
67 \DeclareOption{journal}{\typeout{Main journal option}%
68   \@journaltrue\@rmtwocoltrue\@printdatestrue\@manuscriptfalse
69   \PassOptionsToClass{10pt}{article}}
```

```

70 \DeclareOption{guide}{\typeout{User guide option}%
71 \@guidetrue\@journalfalse\@rmtwocoltrue\@manuscriptfalse
72 \PassOptionsToClass{10pt}{article}}
73 \DeclareOption{preprint}{\typeout{Preprint option}%
74 \@preprinttrue\@manuscriptfalse\PassOptionsToClass{10pt}{article}}
75 \DeclareOption{proof}{\typeout{Author proof option}%
76 \@prooftrue\@manuscriptfalse}
77 \DeclareOption{proceedings}{\typeout{Proceedings option}%
78 \@proceedingstrue\@journalfalse\@rmtwocoltrue\@newstyletrue
79 \@suppressfulladdressestrue
80 \@printdatesfalse\@manuscriptfalse\PassOptionsToClass{10pt}{article}}
81 \DeclareOption{printdates}{\typeout{Force printing of received/accepted dates}%
82 \@printdatestrue}
83 \DeclareOption{book}{\typeout{Whole issue option}%
84 \@booktrue}
85 \DeclareOption{nonatbib}{\typeout{Turn off natbib support (required
86 for compatibility with old rmaacite package).}%
87 \@natbibfalse}
88 \DeclareOption{newstyle}{\typeout{Use new layout style}%
89 \@newstyletrue}
90 \DeclareOption{oldstyle}{\typeout{Use old layout style}%
91 \@newstylefalse}
92 \DeclareOption{debug}{\typeout{Loads of annoying messages}%
93 \@debugtrue}

```

These two need to be declared explicitly so that `\ExecuteOptions` actually does something.

```

94 \DeclareOption{twocolumn}{\@rmtwocoltrue}
95 \DeclareOption{onecolumn}{\@rmtwocolfalse}
96 \DeclareOption{twoside}{\PassOptionsToClass{\CurrentOption}{article}}
97 \DeclareOption{boldkeywords}{\@boldkeywordstrue}

```

Bold, upper-case keywords used to be the default. Now they must be turned on explicitly with the `boldkeywords` option.

```

98 \DeclareOption{boldkeywords}{\@boldkeywordstrue}

```

Pass any other option along to the article class.

```

99 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{article}}

```

Default options are to be two-sided and based on the standard L^AT_EX `article` class, unless we are processing the entire book, in which case we base ourselves on the standard `book` class. Default is to use `manuscript` option unless otherwise specified.

```

100 \ExecuteOptions{twoside,manuscript} \ProcessOptions\relax
101 \if@book
102 \if@rmtwocol\LoadClass[twocolumn]{book}\else\LoadClass{book}\fi
103 \newcommand{\abstract}{\relax}
104 \newcommand{\@maketitle}{\relax}
105 \else
106 \if@rmtwocol\LoadClass[twocolumn]{article}\else\LoadClass{article}\fi
107 \fi

```

Attempt to use natbib for citations 02 Jan 2003.

```

108 \if@natbib
109 \RequirePackage{natbib}[1999/02/25]
110 \bibpunct{({})}{;}{a}{}{,}
111 \def\bibfont{\small}

```

```

112 \renewcommand\bibsection{\section*{REFERENCES}}
113 \setlength\bibsep{0pt}
114 \setlength\bibhang{1.5em}
115 \bibliographystyle{rmaa}
116 \fi

```

We want the `graphicx` package for the extended syntax of `\includegraphics`. We want the `ifthen` package for using in these macros (although we don't much yet). We explicitly load `babel` since some \LaTeX distributions messed up the hyphenation if we didn't.

```

117 \RequirePackage{graphicx}
118 \RequirePackage{ifthen}
119 \IfFileExists{babel.sty}{%
120 %   \let\@restoreindent=\@afterindentfalse
121   \RequirePackage[english]{babel}
122 %   \@restoreindent
123 %% reinstate the definition of \@roman so as not to break .idx files
124 \@ifundefined{org@@roman}{\relax}{\renewcommand{\@roman}[1]{\org@@roman{##1}}}
125 }{%
126 \typeout{Package babel.sty not found - don't worry about this}}

```

Try to load the `dcolumn` and `booktabs` packages if they can be found. These can produce nicer-looking tables.

```

127 \IfFileExists{dcolumn.sty}{%
128   \RequirePackage{dcolumn}
129 }{%
130   \typeout{Package dcolumn.sty not found - you will not be able to
131     align columns on decimal points in tables}}
132 \IfFileExists{booktabs.sty}{%
133   \RequirePackage{booktabs}
134 }{%
135   \typeout{Package booktabs.sty not found - your tables will not look
136     as pretty as they ought too.}
137 }
138 \IfFileExists{makeidx.sty}{%
139   \RequirePackage{makeidx}
140 }{%
141   \typeout{Package makeidx.sty not found - Author Index may not work.}
142 }
143 %% commented out for moment since requires more modern version of LaTeX
144 %% \RequirePackage{latin1}{inputenc}

```

We use `hyperref` to get internal and external links. But I don't like the colored boxes so I turn those off. We use `etoolbox` for patching and robustifying at the moment. In the future, I want to port a lot of other stuff over to it. For instance, replace the `ifthen` package and the \TeX ifs too.

We target the latest version (1.7) of PDF, rather than the default of 1.5. This reduces the chance of getting warnings from included `graphics`. This is not strictly related to `hyperref`, but we put it here anyway.

```

145 \RequirePackage{etoolbox}
146 \RequirePackage{hyperref}
147 \hypersetup{hidelinks}
148 \pdfminorversion=7

```

We patch the `\@combinedblfloats` following a suggestion by Heiko Oberdiek

at <https://tex.stackexchange.com/a/249743/3843>, which avoids problems when hyperlinks are split across pages.

```
149 \urlstyle{same}
150 \newcommand\email{\begingroup \urlstyle{rm}\Url}
151 \patchcmd\@combinedbfloats{\box\@outputbox}{\unvbox\@outputbox}{}{%
152 \errmessage{\noexpand\@combinedbfloats could not be patched}%
153 }%
```

2.2 Other setup stuff

Some declarations:

```
154 \newif\if@needaddresses
155 \@needaddressestrue
156 \newif\if@frontmatter
157 \@frontmatterfalse
158 \newif\if@inpreamble
159 \@inpreamblettrue
160 \newif\if@firstauthor
161 \@firstauthorttrue
162 \newif\if@firstaffil
163 \@firstaffiltrtrue
164 \newif\if@firstaltaffil
165 \@firstaltaffiltrtrue
166 \newif\if@firstkwd
167 \@firstkwdtrue
168 \newif\if@noexpandADS
169 \@noexpandADSfalse
170 \newif\if@sessiontitlepages
171 \@sessiontitlepagesfalse
```

```
\@rmaaEmpty These are used in various commands to check if arg was left blank
\@rmaaArg 172 \newcommand{\@rmaaEmpty}{}
173 \newcommand{\@rmaaArg}{}%
```

2.3 Compatibility with old L^AT_EX versions

This package is based on the 1998/12/01 release of L^AT_EX. Older releases may not define all the commands that we need. Luckily, we can use `\providecommand` to define these if necessary. The following commands are not defined in the 1994/06/01 release.

```
\MakeUpperCase User commands:
\textsuperscript 174 \providecommand{\MakeUpperCase}[1]{\uppercase{#1}}
\textbackslash 175 \providecommand{\textsuperscript}[1]{\ensuremath{^{\text{rm}}{#1}}}
176 \providecommand{\textbackslash}{\ensuremath{\backslash}}
```

```
\protected@xdef LATEX internal commands:
\restore@protect 177 \providecommand{\protected@xdef}{}%
\@unexpandable@protect 178 \let\@protect\protect
\hb@xt@ 179 \let\protect\@unexpandable@protect
180 \afterassignment\restore@protect
181 \xdef}
```

```

182 \providecommand{\restore@protect}{\let\protect\@@protect}
183 \providecommand{\@unexpandable@protect}{\noexpand\protect\noexpand}
184 \providecommand{\hb@xt@}{\hbox to}

```

2.4 Page layout

The dimensions of the text were defined by Elizabeth. Text width is 169 mm with equal margins on the two sides:

```

185 \setlength{\textwidth}{169mm}
186 \setlength{\@tempdima}{\paperwidth}
187 \addtolength{\@tempdima}{-\textwidth}
188 \setlength{\oddsidemargin}{0.5\@tempdima}
189 \addtolength{\oddsidemargin}{-1in}
190 \setlength{\evensidemargin}{\oddsidemargin}

```

Text height is 225 mm, top margin is 14 mm.

```

191 \setlength{\textheight}{225mm}
192 \setlength{\topmargin}{-1in}
193 \addtolength{\topmargin}{14mm}

```

Space between columns in two-column styles, header, footer, paragraph indentation:

```

194 \setlength{\columnsep}{9.5mm}
195 \setlength{\headsep}{0.7cm}
196 \setlength{\footskip}{0.75cm}
197 \setlength{\parindent}{1.5em}

```

\@set@scalable@length

Try out a new scheme for dealing with various spacing dimensions and allowing the user to easily modify them. The command

```
\set@scalable@length{<name>}{<defaultlength>}{<stretch>}{<shrink>}
```

does a `\setlength{<name>}{<defaultlength plus stretch minus shrink>}` and also defines the user command `\<name>Scale{<factor>}` that can be used to rescale length by `<factor>`. Additionally, now defines the package command `\<name>@set@scale{<FACTOR>}` that also rescales the length by `<FACTOR>`, so that the length becomes $\langle factor \rangle \times \langle FACTOR \rangle \times \langle defaultlength \rangle$.

```

198 \newcommand\@set@scalable@length[4]{%
199   %% arg #1: NAME of length without leading '\\'
200   %%
201   %% arg #2: default VALUE
202   \expandafter\newlength\csname @#1@default\endcsname
203   \expandafter\setlength\csname @#1@default\endcsname{#2}%
204   \expandafter\newlength\csname @@#1@@default\endcsname
205   \expandafter\setlength\csname @@#1@@default\endcsname{#2}%
206   %% arg #3: default STRETCH
207   \expandafter\newlength\csname @#1@stretch\endcsname
208   \expandafter\setlength\csname @#1@stretch\endcsname{#3}%
209   \expandafter\newlength\csname @@#1@@stretch\endcsname
210   \expandafter\setlength\csname @@#1@@stretch\endcsname{#3}%
211   %% arg #4: default SHRINK
212   \expandafter\newlength\csname @#1@shrink\endcsname
213   \expandafter\setlength\csname @#1@shrink\endcsname{#4}%
214   \expandafter\newlength\csname @@#1@@shrink\endcsname

```

```

215 \expandafter\setlength\csname @@#1@@shrink\endcsname{#4}%
216 %%
217 %% User-defined scale \@NAME@scale is unity by default
218 \expandafter\gdef\csname @#1@scale\endcsname{1}%
219 %% Package-defined scale \@NAME@SCALE is unity by default
220 \expandafter\gdef\csname @#1@SCALE\endcsname{1}%
221 %%
222 %% internal command \@reset@NAME should expand to
223 %% \setlength{\@NAME@@default}{\@NAME@SCALE\@NAME@default}
224 %% \setlength\NAME{\@NAME@scale\@NAME@@default}
225 %% in other words: scale x SCALE x default
226 \expandafter\gdef\csname @reset@#1\endcsname{%
227   \expandafter\setlength\csname @@#1@@default\endcsname{%
228     \csname @#1@SCALE\endcsname \csname @#1@default\endcsname
229   }
230   \expandafter\setlength\csname @@#1@@stretch\endcsname{%
231     \csname @#1@SCALE\endcsname \csname @#1@stretch\endcsname
232   }
233   \expandafter\setlength\csname @@#1@@shrink\endcsname{%
234     \csname @#1@SCALE\endcsname \csname @#1@shrink\endcsname
235   }
236   \expandafter\setlength\csname #1\endcsname{%
237     \csname @#1@scale\endcsname \csname @@#1@@default\endcsname
238     \@plus
239     \csname @#1@scale\endcsname \csname @@#1@@stretch\endcsname
240     \@minus
241     \csname @#1@scale\endcsname \csname @@#1@@shrink\endcsname
242   }}
243 %%
244 %% User command \NAMEscale should expand to
245 %% {\renewcommand\@NAME@scale{#1}\@reset@NAME}
246 \expandafter\gdef\csname #1Scale\endcsname##1{%
247   \expandafter\gdef\csname @#1@scale\endcsname{##1}%
248   \csname @reset@#1\endcsname}
249 %%
250 %% Package command \NAME@set@SCALE should expand to
251 %% {\renewcommand\@NAME@SCALE{#1}\@reset@NAME}
252 \expandafter\gdef\csname #1@set@SCALE\endcsname##1{%
253   \expandafter\gdef\csname @#1@SCALE\endcsname{##1}%
254   \csname @reset@#1\endcsname}
255 %%
256 %% initialize at default values with \@reset@NAME
257 \csname @reset@#1\endcsname
258 }

```

\parskip First use of this new infrastructure: set interparagraph space to be zero but with a small amount of stretchiness.

```

259 % \ifthenelse{\boolean{@manuscript}}{%
260 %   \@set@scalable@length{parskip}{0.5\baselineskip}{0.3\p@}{0.1\p@}
261 % }{
262 %   \@set@scalable@length{parskip}{0\p@}{0.3\p@}{0\p@}
263 % }

```

\abovesectionskip Define some utility rubber lengths for use in section 2.13.

\belowsectionskip 264 \newlength{\abovesectionskip}

\aboveparaskip 265 \newlength{\belowsectionskip}

\belowparaskip


```

266 \newlength{\aboveparaskip}
267 \newlength{\belowparaskip}

```

The default values for these lengths are those traditionally used for the onecolumn style.

```

268 \@set@scalable@length{aboveset@length}{-3.5ex}{-4ex}{-2ex}
269 \@set@scalable@length{belowset@length}{2.3ex}{0ex}{2ex}
270 \@set@scalable@length{aboveparaskip}{3.25ex}{2ex}{0.5ex}
271 \@set@scalable@length{belowparaskip}{-1em}{\z@}{\z@}

```

We also make scalable some of the standard float parameters. These are the same defaults as in the standard article classes, but slightly more stretchy. For the twocolumn style, they are currently halved, see below. Note that I have also lumped `\abovecaptionskip` in with these, since it plays a similar role. There is also a `\belowcaptionskip` but it is set to zero in the standard classes.

```

272 \@set@scalable@length{floatsep}{12\p@}{4\p@}{4\p@}
273 \@set@scalable@length{textfloatsep}{20\p@}{4\p@}{8\p@}
274 \@set@scalable@length{intextsep}{12\p@}{4\p@}{4\p@}
275 \@set@scalable@length{dblfloatsep}{12\p@}{4\p@}{4\p@}
276 \@set@scalable@length{dbltextfloatsep}{20\p@}{4\p@}{8\p@}
277 \@set@scalable@length{abovecaptionskip}{10\p@}{\z@}{\z@}

```

<pre> \@before@title@skip \@before@author@skip \@between@author@skip \@before@abstract@skip \@after@abstracthead@skip \@between@abstract@skip \@before@kwd@skip \@before@dates@skip </pre>	<p>Spacing parameters used in <code>\@maketitle</code>. These are not changed by default except by the user, so they don't need to go into <code>\@package@default@lengths</code>.</p> <pre> 278 \newlength{\@before@title@skip} 279 \newlength{\@before@author@skip} 280 \newlength{\@between@author@skip} 281 \newlength{\@before@abstract@skip} 282 \newlength{\@after@abstracthead@skip} 283 \newlength{\@between@abstract@skip} 284 \newlength{\@before@kwd@skip} 285 \newlength{\@before@dates@skip} 286 \@set@scalable@length{@before@title@skip}{2em}{\z@}{\z@} 287 \@set@scalable@length{@before@author@skip}{1.5em}{\z@}{\z@} 288 \@set@scalable@length{@between@author@skip}{0.5em}{\z@}{\z@} 289 \@set@scalable@length{@before@abstract@skip}{3ex}{1ex}{0.5ex} 290 \@set@scalable@length{@after@abstracthead@skip}{1ex}{\z@}{\z@} 291 \@set@scalable@length{@between@abstract@skip}{2ex}{1ex}{0.5ex} 292 \@set@scalable@length{@before@kwd@skip}{1ex}{0.5ex}{0.2ex} 293 \@set@scalable@length{@before@dates@skip}{2ex}{0.5ex}{0.2ex} </pre>
--	---

Spacing above and below displayed equations also wants to be done like this, but it is more complicated since the standard article classes make these change with the fontsize. Something to do later, maybe.

<pre> \@package@default@lengths </pre>	<p>The value actually used for these lengths is controlled by the <code>\SCALE</code> parameter, which depends on the style option that is in effect. This is set using the <code>\@package@default@lengths</code> command, which must be called every time the style changes (e.g., changing from onecolumn to twocolumn).</p>
--	---

```

294 \newcommand{\@package@default@lengths}{%
295   \ifthenelse{\boolean{@rmtwocol}}{%
296     %% twocolumn mode
297     \aboveset@length@set@SCALE{0.5}

```

```

298 \belowsectionskip@set@SCALE{0.5}
299 \aboveparaskip@set@SCALE{0.5}
300 \belowparaskip@set@SCALE{1}
301 \floatsep@set@SCALE{0.5}
302 \textfloatsep@set@SCALE{0.5}
303 \intextsep@set@SCALE{0.5}
304 \dblfloatsep@set@SCALE{0.5}
305 \dbltextfloatsep@set@SCALE{0.5}
306 }{%
307 %% onecolumn mode
308 \abovesectionskip@set@SCALE{1}
309 \belowsectionskip@set@SCALE{1}
310 \aboveparaskip@set@SCALE{1}
311 \belowparaskip@set@SCALE{1}
312 \floatsep@set@SCALE{1}
313 \textfloatsep@set@SCALE{1}
314 \intextsep@set@SCALE{1}
315 \dblfloatsep@set@SCALE{1}
316 \dbltextfloatsep@set@SCALE{1}
317 }%
318 }
319 \@package@default@lengths

```

`\RescaleLengths` User commands that will fiddle with all the scalable lengths.

```

\RescaleSecLengths 320 \newcommand{\RescaleLengths}[1]{%
\RescaleFloatLengths 321 \RescaleSecLengths{#1}\RescaleFloatLengths{#1}\RescaleTitleLengths{#1}}
\RescaleTitleLengths 322 \newcommand{\RescaleSecLengths}[1]{%
323 %% sections
324 \abovesectionskipScale{#1}
325 \belowsectionskipScale{#1}
326 \aboveparaskipScale{#1}
327 }
328 \newcommand{\RescaleFloatLengths}[1]{%
329 %% floats
330 \floatsepScale{#1}
331 \textfloatsepScale{#1}
332 \intextsepScale{#1}
333 \dblfloatsepScale{#1}
334 \dbltextfloatsepScale{#1}
335 \abovecaptionskipScale{#1}
336 }
337 \newcommand{\RescaleTitleLengths}[1]{%
338 %% maketitle
339 \@before@title@skipScale{#1}
340 \@before@author@skipScale{#1}
341 \@between@author@skipScale{#1}
342 \@before@abstract@skipScale{#1}
343 \@after@abstracthead@skipScale{#1}
344 \@between@abstract@skipScale{#1}
345 \@before@kwd@skipScale{#1}
346 \@before@dates@skipScale{#1}
347 }

```

`\MSextramargin` For the manuscript option we have an extra 0.3 inch vertical margin and 1 inch horizontal margin for marginal notes (by hand or with `\marginpar`).

```

348 \newlength{\MExtraHmargin}\newlength{\MExtraVmargin}
349 \setlength{\MExtraHmargin}{1in}
350 \setlength{\MExtraVmargin}{0.3in}
351 \if@manuscript
352   \renewcommand{\baselinestretch}{1.1}
353   \addtolength{\textwidth}{-2\MExtraHmargin}
354   \addtolength{\oddsidemargin}{\MExtraHmargin}
355   \setlength{\evensidemargin}{\oddsidemargin}
356   \addtolength{\textheight}{-2\MExtraVmargin}
357   \addtolength{\topmargin}{\MExtraVmargin}
358 %     \raggedright
359 \fi

```

Float parameters: don't allow bottom floats by default.

```

360 \renewcommand{\fps@figure}{tp}
361 \renewcommand{\fps@table}{tp}

```

```

\rmaa@AuthorWidthFrac
\rmaa@AbstractWidthFrac

```

These parameters control what fraction of the total text width can be used by the list of authors and the abstract/resumen, respectively.

```

362 \newcommand{\rmaa@AuthorWidthFrac}{1.0}
363 \newcommand{\rmaa@AbstractWidthFrac}{0.75}

```

Use a wide abstract to save space in the new style.

```

364 \if@newstyle\renewcommand{\rmaa@AbstractWidthFrac}{1.0}\fi

```

Some things to consider in future versions. Trying to avoid too many widows, etc. Apparently, the following will work best with `\flushbottom`.

```

365 %%\widowpenalty=10000
366 %%\clubpenalty=10000

```

Also, should perhaps try getting rid of underfull/overfull box warnings.

```

367 \hbadness=10000
368 \vbadness=10000
369 \setlength\hfuzz{\maxdimen}
370 \setlength\vfuzz{\maxdimen}

```

2.5 Various text styles for different contexts

```

\rmaa@AffilStyle
\rmaa@PagesStyle
\rmaa@YearStyle
\rmaa@VolumeStyle
\rmaa@VolumenStyle
\rmaa@JournalNameStyle
\rmaa@ReceivedStyle
\rmaa@AbstractHeaderStyle
\rmaa@JournalNameStyle

```

Style commands for the different fields used by `\maketitle` in constructing the title page of the article. These have the form `\rmaa@XYZStyle{TEXT}`. I'm not sure these were really a good idea, but never mind ...

```

371 \newcommand{\rmaa@AffilStyle}[1]{\normalsize\rmfamily#1}
372 \newcommand{\rmaa@PagesStyle}[1]{\normalsize\rmfamily#1}
373 \newcommand{\rmaa@YearStyle}[1]{\normalsize\rmfamily#1}
374 \newcommand{\rmaa@VolumeStyle}[1]{\normalsize\rmfamily\bfseries#1}
375 \newcommand{\rmaa@VolumenStyle}[1]{\Large\sffamily\bfseries#1}
376 \newcommand{\rmaa@JournalNameStyle}[1]{\normalsize\itshape#1}
377 \newcommand{\rmaa@ReceivedStyle}[1]{\normalsize\rmfamily\itshape#1}
378 \newcommand{\rmaa@AbstractHeaderStyle}[1]{%
379   \normalsize\rmfamily\MakeUpperCase{#1}}
380 \newcommand{\rmaa@TitleStyle}[1]{%
381   {\large\bfseries\rmfamily\boldmath\MakeUpperCase{#1}\par}}

```

`\rmaa@FrontSecStyle` Headings of “front sections” (see section 2.21)

```

382 \newcommand{\rmaa@FrontSecStyle}[1]{%
383   {\normalsize\bfseries\rmfamily\MakeUpperCase{#1}}}
```

`\rmaa@TOCTitleStyle` Commands to set style of TOC and index entries. Rewritten to avoid unnecessary
`\rmaa@TOCPartStyle` font commands in the .toc and .ind files

```

\rmaa@IndexTitleStyle 384 \newcommand{\rmaa@TOCTitleStyle}[1]{\MakeUpperCase{#1}}
\rmaa@TOCAuthorStyle 385 \newcommand{\rmaa@TOCPartStyle}[1]{\rmaa@TOCTitleStyle{#1}}
\rmaa@IndexAuthorStyle 386 \newcommand{\rmaa@IndexTitleStyle}[1]{#1}
387 \newcommand{\rmaa@TOCAuthorStyle}[1]{%
388   {\itshape#1}}
389 \newcommand{\rmaa@IndexAuthorStyle}[1]{%
390   \protect\mbox{\bfseries#1}}
```

`\rmaa@KeywordStyle` The style of the keywords depends on whether we are using the newstyle op-
`\rmaa@KeywordHeaderStyle` tion or not. If we are, then they are small.

```

391 \ifthenelse{\boolean{@newstyle}}{
392   \newcommand{\rmaa@KeywordStyle}[1]{%
393     {\small%
394       \if@boldkeywords
395         \bfseries\MakeUpperCase{\raggedright #1}
396       \else
397         \raggedright #1
398       \fi
399     }}
400 \newcommand{\rmaa@KeywordHeaderStyle}[1]{%
401   {\small\itshape#1}}
402 {
403   \newcommand{\rmaa@KeywordStyle}[1]{%
404     {\normalsize%
405       \if@boldkeywords\bfseries\fi\raggedright #1}}
406 \newcommand{\rmaa@KeywordHeaderStyle}[1]{%
407   {\normalsize\itshape#1}}
```

2.6 Page styles

`\ps@rmaa` The running headers for normal pages:

```

408 \newcommand{\ps@rmaa}{%
nothing in either foot;
409 \renewcommand\@oddfoot{\relax}%
410 \renewcommand\@evenfoot{\relax}%
page number and short author list in the even heads;
411 \renewcommand\@evenhead{\rlap{\thepage}\hfil\@shortauthor\hfil}%
short title and page number in the odd heads.
412 \renewcommand\@oddhead{\hfil\@shorttitle\hfil\llap{\thepage}}
413 }
```

`\ps@rmaafirstpage` The header of the first page of each article:

```

414 \newcommand{\ps@rmaafirstpage}{%
415   \renewcommand\@oddfoot{\hfil\thepage}%
```

footer corrected (06 Jun 2000) to have page on outside edge;

```
416 \renewcommand\@evenfoot{\thepage\hfil}%
```

Header has journal name, volume, and page numbers for a regular article, or similar for special cases.

```
417 \if@preprint
418 \renewcommand\@oddhead{%
419   \if@proceedings
420     \textsc{To appear in ``\@conftitle{} (\rmaa@YearStyle{\@year})''}\hfil
421     \textit{RMxAC}
422   \else
423     \textsc{To appear in} \@journalname\hfil
424   \fi}\fi%
425 \if@guide
426 \renewcommand\@oddhead{\textsc{Documentation} (\rmaa@YearStyle{\@year})\hfil}
427 \fi%
428 \if@manuscript
429 \renewcommand\@oddhead{Manuscript for \@journalname{} (\rmaa@YearStyle{\@year})\hfil}
430 \fi%
431 \if@journal
432 \renewcommand\@oddhead{%
433   \parbox{\textwidth}{
434     \@journalname, \rmaa@VolumeStyle{\@volume},
435     \rmaa@PagesStyle{\@artpages}\
436     (\rmaa@YearStyle{\@year})\hfil\[\!1pt]
437     {\small\textcopyright{} \@year:
438       Instituto de Astronom\i{}a,
439       Universidad Nacional Aut\onoma de M\exico}\hfil\[\!1pt]
440     {\small\@DOI@url}\hfil
441   }%
442 }\fi%
443 \renewcommand\@evenhead{\@oddhead}}
```

By default, use the \ps@rmaa page style.

```
444 \pagestyle{rmaa}
```

2.7 Preamble commands

Everything you need for setting the title page, TOC and index entries, etc.

2.7.1 Commands for the title page

\resumen User commands for setting the resumen and abstract. These should be used in the document header. The internal commands \@resumen and \@abstract are used to hold the actual text pending output via the \maketitle command.

```
\@abstract 445 \newif\if@setresumen
446 \newcommand{\resumen}[1]{%
447 %% \renewcommand{\@resumen}{\selectlanguage{spanish}\#1}}%
448 \renewcommand{\@resumen}{\ignorespaces\#1}%
449 \@setresumentrue}
450 \renewcommand{\abstract}[1]{%
451 \renewcommand{\@abstract}{\ignorespaces\#1}}
452 \renewcommand\ADS@abstract{\#1}
453 %% Not a good idea, since then author macros are not expanded and
```

```

454%% cause errors later. However, by not doing it we are vulnerable to
455%% fragile commands.....
456 \if@noexpandADS\@onelevel@sanitize{\ADS@abstract}\fi
457 \abstractpresenttrue
458 }
459 \newcommand{\ADSnoexpand}{\@noexpandADStrue}

\boldabstract This is the version for doing 1-page conference proceedings. Still save the text for
ADS but then write it out immediately as a bold paragraph.
460 \newcommand{\boldabstract}[1]{%
461 \gdef\ADS@abstract{#1}%
462 \renewcommand{\@abstract}{#1}%
463 \if@noexpandADS\@onelevel@sanitize{\ADS@abstract}\fi%
464 \noindent\textbf{\boldmath #1}
465 }

Default value in each case is to print out a warning if not set
466 \newcommand{\@resumen}{%
467 \setresumenfalse \ClassWarningNoLine{rmaa}{No Spanish abstract
468 (resumen) specified - if you do not speak Spanish, this will be
469 translated by the editors}%
470 \textbf{Favor de proporcionar un resumen en espa\~nol. If you are
471 unable to translate your abstract into Spanish, the editors will
472 do it for you.} }
473 \newcommand{\@abstract}{\ClassWarningNoLine{rmaa}{No abstract
474 specified}}

\title Similarly, \title is the preamble command to set the title of the article. This
\@rawtitle is used in various places, typeset in different styles, hence the use of the inter-
\@TOCtitle nal \@rawtitle, \@title, \rmaaIndexTitle, and \@TOCtitle commands,
\rmaaIndexTitle each of which uses the relevant style from section 2.5
475 \newcommand{\@rawtitle}{Raw Title}
476 \newcommand{\@TOCtitle}{\rmaa@TOCtitleStyle{Title for TOC}}
477 \newcommand{\rmaaIndexTitle}{\rmaa@IndexTitleStyle{Title for index}.}
478 \newcommand{\@TOCaftertitle}{}
479 \renewcommand{\title}[1]{%
480 %% {\ADS@sanitize\xdef\@rawtitle{#1}}
481 \renewcommand{\@rawtitle}{\noexpand#1}
482 \let\ADS@title=\@rawtitle
483 \renewcommand{\@title}{\rmaa@TitleStyle{#1}}%
484 \renewcommand{\@TOCtitle}{\rmaa@TOCtitleStyle{#1}\@TOCaftertitle}%
485 \renewcommand{\rmaaIndexTitle}{\rmaa@IndexTitleStyle{#1}\@TOCaftertitle}.}%
486 }

All the weird and whacky ways of indicating the author affiliations.

\affil First, the way that sets it directly underneath the authors name. Note that
\affil trumps all other affiliations for the purposes of getting into the ADS
stuff (we use \gdef). ...
487 \newcommand{\affil}[1]{%
488 \[1.5ex]\rmaa@AffilStyle{#1}\[1.5ex]%
489 \if@firstaffil\gdef\ADS@affil{#1}\@firstaffilfalse\fi
490 }
491 \renewcommand{\and}{and\[1.5ex]}

```

```

\altaffil Alternative affiliations are footnoted.
492 \newcommand{\altaffil}[1]{%
493   \if@firstaltaffil\gdef\ADS@affil{#1}\@firstaltaffilfalse\fi%
494   \thanks{#1}}

\altaffilmark Alternative-alternative mechanism for affiliations—should not be mixed with
\altaffiltext \altaffil (unless you know what you are doing) or there will be problems
with numbering.
495 \newcommand{\altaffilmark}[1]{\textsuperscript{#1}}
496 \newcommand{\altaffiltext}[2]{%
497   \if@firstaltaffil\gdef\ADS@affil{#2}\@firstaltaffilfalse\fi
498   \stepcounter{footnote}%
499   \protected@xdef\@thanks{\@thanks
500     \protect\footnotetext[#1]{#2}}}

\keywords Sundry minor preamble commands. All self-explanatory, I hope. \keywords is
\@keywords the old user interface (deprecated). New articles should use \addkeyword once
\@keywordheader for each keyword. That way the ADS record comes out right too (comma rather
than em-dash separator).
501 \newcommand{\@kwdsep}{ --- }
502 \newcommand{\ADS@kwdsep}{, }
503 \newcounter{kwdcounter}\setcounter{kwdcounter}{0}
504 \newcommand{\addkeyword}[1]{%
505   \addtocounter{kwdcounter}{1}
506   \ifthenelse{\thekwdcounter > 6}{
507     \ClassError{rmaa}{Too many keywords. A maximum of 6 keywords is allowed.}{}
508   }{}
509   \if@firstkwd%
510     \renewcommand{\@keywords}{\if@boldkeywords\uppercase{#1}\else #1\fi}
511     {\ADS@sanitize\def\ion{\plainion}\gdef\ADS@keywords{#1}}
512   \@firstkwdfalse
513   \else%
514     \edef\@keywords{\@keywords\@kwdsep \if@boldkeywords\uppercase{#1}\else #1\fi}%
515     {\ADS@sanitize\def\ion{\plainion}\xdef\ADS@keywords{\ADS@keywords\ADS@kwdsep #1}}%
516   \fi}
517 \newcommand{\ADS@sanitize}{%
518   \def\mathrm{}
519   \def{@{\ }
520   \def~{\ }
521   \def\langle{<}
522   \def\rangle{>}
523   \def\log{log }
524   \def\sin{sin }
525   \def\cos{cos }
526   \def\tan{tan }
527   \def\fd{^d.}
528   \def\fh{^h.}
529   \def\fm{^m.}
530   \def\fs{^s.}
531   \def\fdg{.}
532   \def\farcm{' .}
533   \def\farcs{' '.}
534   \def\arcdeg{}
535   \def\,{ }
536 }

```

```

537 \newcommand{\keywords}[1]{%
538   \renewcommand{\ADS@keywords}{#1}
539   \renewcommand{\@keywords}{\uppercase{#1}}
540 }
541 \newcommand{\@keywordheader}{\rmaa@KeywordHeaderStyle{Key Words:}}
542 \newcommand{\@keywords}{%
543   \ClassWarningNoLine{rmaa}{No keywords specified}%
544   Keywords go here
545 }

```

`\shorttitle` **Commands for setting the running headers.**

```

\shortauthor 546 \newcommand{\shorttitle}[1]{%
\shorttitle 547   \renewcommand{\@shorttitle}{\MakeUpperCase{#1}}
\@shortauthor 548 \newcommand{\shortauthor}[1]{%
549   \renewcommand{\@shortauthor}{\MakeUpperCase{#1}}
550 \newcommand{\@shorttitle}{SHORT TITLE GOES HERE}
551 \newcommand{\@shortauthor}{SHORT AUTHOR GOES HERE}

```

2.7.2 The full addresses

`\fulladdresses` **Aaghh, the full addresses! A perennial source of problems.**

```

\@fulladdresses 552 \newlength{\@fulladdheight}
\@fulladdheight 553 \newlength{\@fulladddepth}
\@fulladddepth 554 \newsavebox{\@fulladdbox}
\@fulladdbox 555 %% \fulladdresses command modified (11 May 2000) so that we can put
556 %% \fulladdresses{} in the article to suppress the output of the
557 %% addresses
558 \newcommand{\@FinalFigure}{\relax}
559 \newcommand{\FinalFigure}[1]{\renewcommand{\@FinalFigure}{#1}}
560 \newcommand{\fulladdresses}[1]{%
561   \renewcommand{\@rmaaArg}{#1}
562   \ifx\@rmaaArg\@rmaaEmpty
563     \renewcommand{\@fulladdresses}{}
564   \else
565     \renewcommand{\@fulladdresses}{
566       \normalsize%
567       \ifx\@FinalFigure\relax\else\vfill\@FinalFigure\vfill\fi
568     %%
569       %% do addresses as a list (copied from thebibliography environment)
570       \list{\null}{\leftmargin 1.5em\topsep\z@\labelwidth\z@\labelsep\z@itemindent -1.5em
571         \itemsep\z@\parsep\z@\usecounter{enumi}}
572       \sloppy\clubpenalty4000\widowpenalty4000
573       \sfcode'\.=1000\relax
574       #1
575       \endlist
576     }
577   \fi
578 }
579 \newcommand{\@fulladdresses}{Full addresses go here}

```

`\suppressfulladdresses` **New user-level command for suppressing full addresses should you so desire.
Currently used in the single-page-poster style.**

```

580 \newcommand{\suppressfulladdresses}{\@suppressfulladdressestrue\@needaddressesfalse}

```


`\printdates` Command to activate the printing out of the received/accepted dates. This can
`\noprintdates` also be done using the `printdates` option, which is the default for `journal`,
but not for `proceedings`.

```
581 \newcommand{\printdates}{\@printdatestrue}
582 \newcommand{\noprintdates}{\@printdatesfalse}
```

`\@outputaddressesifnecessary` Command to output the addresses if we haven't already done so This is called
by:

1. The end of the `thebibliography` environment

2. The `\outputfulladdresses` command

```
583 \newcommand{\@outputaddressesifnecessary}{%
584   \ClassInfo{rmaa}{Calling \@outputaddressesifnecessary}
585   \ifthenelse{\boolean{@needaddresses}}{%
586     %% If in one column style, or in the first column of a two column
587     %% style then we can try to put it on this page
588     \ifthenelse{\boolean{@firstcolumn} \or \not\boolean{@rmtwocol}}{%
589       \@outputaddresses}{%
590       %% otherwise give warning it will be on a separate page
591       \ClassWarning{rmaa}{Full addresses will go on a separate
592       page (please see User Guide for how to remedy this)}}%
593     %% If we haven't managed yet, put it on its own page
594     \ifthenelse{\boolean{@needaddresses}}{%
595       \if@debug{\ClassWarning{rmaa}{In this silly bit!}}\fi
596       \clearpage\vfill\@outputaddresses}{}%
597   }{
598     %% If we don't need them, we still might need to do the eoa hook
599     \ifthenelse{\boolean{@suppressfulladdresses}}{%
600       \if@debug{\ClassWarning{rmaa}{XXX}}\fi
601     %% \if@book\else\@endofarticlehook\null\fi
602     }{}
603   }%
604 }
```

`\outputfulladdresses` A user interface to the above command, in case there is no `biblio` (11 May 2000)

```
605 \newcommand{\outputfulladdresses}{\@outputaddressesifnecessary}
```

`\adjustfinalcols` This command starts a new column and should be used to ensure that the
columns balance on the last page. It also outputs the full author addresses to
ensure that this occurs in the left hand column. The `\par` command is so that the
current line will be taken account of when working out `\pagetotal`

```
606 \newcommand{\adjustfinalcols}{\if@twocolumn\goodbreak\@outputaddresses\newpage\noindent\fi}
```

`\@outputaddresses` Command to do the work of outputting the addresses. This can be called by

1. an explicit `\adjustfinalcols`

2. via `\@outputaddressesifnecessary`, q.v.

```
607 \newcommand{\@outputaddresses}{%
608   % Allow option of suppressing the full addresses, in which case
609   % we just run the hook if we are not in a book style
610   \if@suppressfulladdresses
```

```

611 %%      \if@book\else\@endofarticlehook\null\fi
612 \else
613 %% save the full addresses in a box for output later
614 \sbox{\@fulladdbox}{\parbox{\textwidth}{\@fulladdresses}}
615 % calculate height of address box
616 \settoheight{\@fulladdheight}{\usebox{\@fulladdbox}}
617 \settodepth{\@fulladddepth}{\usebox{\@fulladdbox}}
618 \addtolength{\@fulladdheight}{\@fulladddepth}
619 \if@debug
620 { \typeout{Address total height: \the\@fulladdheight}
621   \typeout{Text height: \the\pagetotal}
622   \typeout{Goal height: \the\pagegoal}
623 }
624 \fi
625 % reuse \@fulladdheight to mean the total height of text+addresses
626 \addtolength{\@fulladdheight}{\pagetotal}
627 %% \addtolength{\@fulladdheight}{-\baselineskip}
628 \if@debug\typeout{Adjusted text + addresses height: \the\@fulladdheight}\fi
629 % check it will fit on current page
630 \ifdim\@fulladdheight<\pagegoal
631   %% must shift it to the left
632   %% to compensate for the hanging indentation in the reference list.
633   %% NOTE: this is not foolproof!
634   %% NB. This will give overfull hbox warnings, which is a bit ugly.
635   \vfill\noindent\if@Biblist\hspace*{-\leftmargin}\fi
636   \usebox{\@fulladdbox}
637   % Set this to show we've done it
638   \@needaddressesfalse
639   % and assume we are at the end of the article
640   % so that we do the EOA hook if not in the book style
641 %%      \if@book\else\@endofarticlehook\fi
642 \else
643   % if not, just do nothing. With luck, this function will get
644   % called again on the next page
645   \if@debug{\typeout{Holding over full addresses to next page}}\fi
646 \fi\fi
647 }

```

2.7.3 Commands for editors

Some user/editor commands for doing the TOC and index in the book option. They are defined here rather in the book-specific part since they need to be always available in order to avoid breaking documents.

<pre> \listofauthors \@rawauthors \rmaaTOCauthors </pre>	<p>The command <code>\listofauthors</code> formats an author list for use in the TOC. It should contain the same names as in the <code>\author</code> command, but without the affiliation garbage and using <code>\&</code> instead of and.</p> <pre> 648 \newcommand{\@rawauthors}{Raw Authors} 649 \newcommand{\rmaaTOCauthors}{\noexpand\rmaaTOCAuthorStyle{Author list for TOC}} 650 \newcommand{\listofauthors}[1]{% 651 \renewcommand{\@rawauthors}{#1} 652 \renewcommand\rmaaTOCauthors{\noexpand\rmaaTOCAuthorStyle{#1}}} </pre>
<pre> \indexauthor </pre>	<p>The command <code>\indexauthor</code> produces an index entry for each author. This command must come <i>after</i> the <code>\title</code> and the <code>\listofauthors</code> commands.</p>

Also, there should be one `\indexauthor` command for *each* author. We also add the author onto the end of the `\ADS@authors` macro and construct the `\ADS@authorinitial` by a most cunning method (see below), but only for the first author.

No, No, NO! This was all wrong. Backed out completely:

Completely rewritten (19 Dec 2002) since we now use the index class, so as to be able to alphabetize accented characters. A side effect of this is that `\index` no longer expands out the argument after the `@`, so we instead add all the `\index` commands to a list (`\indexauthor@deferlist`), which is executed in the `\@begofarticlehook`.

Note the stuff with `\toks0` is copied from Exercise 20.15 of the `TEXbook`—it is to make sure the latin1-accented name gets passed into the `idx` file.

We now go back to the old way of doing things, using an optional argument to the `\indexauthor` command that has the name without accents.

```

653 \newcommand\@isortkey{}
654 \newcommand\@emptykey{empty}
655 \newcommand\indexauthor[2][empty]{
656   \renewcommand\@isortkey{#1}
657   \ifx\@isortkey\@emptykey \renewcommand\@isortkey{#2}\fi
658   \index{\@isortkey @{\rmaaindexauthorstyle{#2}}\hskip1em plus1em minus0.4em
659     \rmaaindexTitle\hskip1em plus2em minus0.4em\penalty-100
660     \rmaaindexTOCauthors}}
661   \indexauthorADS{#2}
662 }
663 %%\def\indexauthor@deferlist{\relax}
664 %%\long\def\indexauthor#1{
665 %%  \def\@@name{#1} \toks0=\expandafter{\@@name}
666 %%  \toks1=\expandafter{\indexauthor@deferlist}
667 %%  \protected@xdef\indexauthor@deferlist{%
668 %%    \the\toks1
669 %%    \noexpand\index{\the\toks0@\noexpand\rmaaindexauthorstyle{\the\toks0}\noexpand\hskip1em
670 %%      \rmaaindexTitle\noexpand\hskip1em plus2em minus0.4em\noexpand\penalty-100
671 %%      \rmaaindexTOCauthors}}
672 %%  }
673 %%  \indexauthorADS{#1}
674 %%  }
675 %%\xdef\indexauthor@deferlist{}
676 \newcommand\indexauthorADS[1]{%
677   \if@firstauthor\protected@xdef\ADS@authorinitial{\firstletter{#1}}\fi
678   \protected@xdef\ADS@authors{\ADS@authors\if@firstauthor\else ; \fi
679     #1}
680   \@firstauthorfalse
681 }

```

Note that the first `#1` sets the key for the index, making sure it actually starts with first letter of the surname. Meanwhile, the `@{ . . . }` expression, which starts with some control sequences is what is written to the `.ind` file. See the `makeindex` man page for details.

`\KillAllAccents` These are utility functions used in the above. `lett` is a counter indicating the
`\firstletter`

```
682 \newcommand{\KillAllAccents}{\def\'{}\def\'{}\def\~{}\def\.\{}\def\i{i}}
683 \newcommand\firstletter[1]{\@car #1\@nil}
```

These are for the editors to set the volume number, etc.

```

690 \newcommand{\SetFirstPage}[1]{\setcounter{page}{#1}}
691 \newcommand{\SetYear}[1]{%
692   \renewcommand{\@year}{#1}
693   \renewcommand{\ADS@year}{#1}
694   \renewcommand{\@any}{\rmaa@VolumenStyle{#1}}
695 }
696 \newcommand{\ReceivedDate}[1]{\renewcommand{\@received}{#1}}
697 \newcommand{\AcceptedDate}[1]{\renewcommand{\@accepted}{#1}}

```

```
698 \newcommand\DOI[1]{%
699   \def\@DOI@url{\url{https://doi.org/10.22201/ia.01851101p.#1}}%
700   \def\ADS@doi{https://doi.org/10.22201/ia.01851101p.#1}%
701 }%
```

Commands to add icon links to ORCID iDs of authors. For example

\ORCIDid{<0000-0000-0000-0000>}

```

702 \newcommand\@orcid@icon{\includegraphics[height=1.8ex]{ORCIDiD_iconvector}}
703 \newcommand\@orcid@iconbig{\includegraphics[height=2ex]{ORCIDiD_iconvector}}
704 \newcommand\ORCIDiD[1]{\href{https://orcid.org/#1}{\,\@orcid@icon}}
705 \newcommand\ORCIDiDfull[1]{%
706   \href{https://orcid.org/#1}{\,\@orcid@iconbig}\,\url{https://orcid.org/#1}}

```

Default values for the containers used by above commands, plus a few more useful ones.

```

707 \newcommand{\@volume}{00}
708 \newcommand{\@volumen}{\rmaa@VolumenStyle{00}}
709 \newcommand{\@artpages}{%
710   \oldpageref{\articlename:RMAAFirstPage}--\oldpageref{\articlename:RMAALastPage}}
711 \newcommand{\@year}{\the\year}
712 \newcommand{\@anyo}{\rmaa@VolumenStyle{2007}}

```

```

713 \newcommand{\@journalname}{\rmaa@JournalNameStyle{%
714     \if@proceedings\RMAASCLong\else\RMAAlong\fi}}
715 \newcommand{\@received}{}
716 \newcommand{\@accepted}{}
717 \newcommand{\@MSnum}{0000}
718 \newcommand{\@DOI@prefix}{https://doi.org/10.22201/ia.01851101p}
719 \def\@DOI@url{\url{https://doi.org/10.22201/ia.01851101p.2099.00.00.00}}

```

The following commands are most useful in the book style. However, the `\SetConfTitle` command can now be used in individual articles to set the header for the preprint style.

```

720 \newcommand{\@reunionplace}{Lugar de la reuni\'on}
721 \newcommand{\@reuniondate}{Fecha de la reuni\'on}
722 \newcommand{\@conftitle}{Conference Title}
723 \newcommand{\SetReunion}[2]{\renewcommand{\@reunionplace}{#1}\renewcommand{\@reuniondate}{#2}}
724 \newcommand{\SetConfTitle}[1]{\renewcommand{\@conftitle}{#1}}
725 \newcommand{\@editors}{Juan Ram\'on de la Fuente and ``El Mosh''}
726 \newcommand{\SetEditors}[1]{\renewcommand{\@editors}{#1}}
727 \newcommand{\@editores}{Juan Ram\'on de la Fuente y ``El Mosh''}
728 \newcommand{\SetEditores}[1]{\renewcommand{\@editores}{#1}}
729 \newcommand{\@mes}{mes de la publicaci\'on}
730 \newcommand{\SetMes}[1]{\renewcommand{\@mes}{\rmaa@VolumenStyle{#1}}}

```

2.8 Notes for Author Proofs and Communication between Editors

We introduce a command `\Note` that should be used to describe any change made to the manuscript. These are a bit tricky to get right. In general we use `\marginpar` but this only works in outer paragraph mode, so we just bung the box where we are if we are in a figure caption or something. If we are in the preamble, then we just use a s part of the

a

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command.

```
731 \newif\if@arenotes
732 \@arenotesfalse
733 \newcounter{notecounter}
734 \setcounter{notecounter}{0}
735 \newcommand\NotesList{}
736 \newcommand\Note[1]{%
737   \if@proof{%
738     \@arenotesttrue%
739     \stepcounter{notecounter}%
740     \if@inpreamble\else{%
741       \NoteMark{\arabic{notecounter}}}%
742     }\fi
743     \protected@xdef\NotesList{\NotesList
744       \protect\item #1}%
745   }\fi%
746 }
747 \newcommand\Changed[2]{Changed ``#1'' to ``#2'' .}
748 \newcommand\NoteMark[1]{%
749   \ifinner
750     \raisebox{1ex}[0pt][0pt]{\makebox[0pt][l]{\framebox{\footnotesize\bfseries
751       N#1}}}%
752   \else
753     \marginpar{\framebox{\footnotesize\bfseries N#1}}%
754   \fi
755 }
756 \newcommand\RefNote[1]{\if@proof\NoteMark{\ref{#1}}\relax\fi}
757 \newcommand\NoteLabel{\protect\label}
758 \newcommand\OutputNotes{%
759   \bgroup
760   \onecolumn
761   \section*{EDITORIAL NOTES}
762   \begin{enumerate}
763     \NotesList
764   \end{enumerate}
765   \egroup
766 }
767 \DeclareRobustCommand\cs[1]{\texttt{\char``\#1}}
768
```

2.9 Bibliographic Records for ADS

We use the `\ADS@BibCode` command to hold the bibliographic code for ADS. It is used in the `%R` field of the bibliographic record for each article. The format is

```
\ADS@BibCode
\ADS@year
\ADS@journal
\ADS@volume
\ADS@firstpage
\ADS@authorinitial
```

YYYYJJJJJVVMPPPPA

where YYYY is the year, JJJJJ is the journal code, which is RMxAA or RMxAC, VVVV is the volume number (right-justified), M is not used by us, PPPP is the first page number (right-justified), and A is the initial of the first author's surname. The volume and page fields are padded with periods ('.'), which causes us some fun (this is done with the macro \PadToFourWithDots described below) .

All these individual bits are held in the commands \ADS@year, \ADS@journal, \ADS@volume, \ADS@firstpage, \ADS@authorinitial.

```
769 \newcommand{\SetADSBibCode}[1]{\renewcommand{\ADS@BibCode}{#1}}
770 \newcommand{\ADS@BibCode}
771 {\ADS@year\ADS@journal\ADS@volume.\PadToFourWithDots{\ADS@firstpage}\ADS@authorinitial}
772 \newcommand{\ADS@year}{2001}
773 \newcommand{\ADS@journal}{\if@proceedings RMxAC\else RMxAA\fi}
774 \newcommand{\ADS@volume}{...}
```

These two are just set to default values here, \ADS@firstpage is set in the document environment for included articles, in the frontsection environment, \tableofcontents command, index and abstracts environments. Also by \AtBeginDocument for stand-alone articles.

God knows how we are going to do \ADS@authorinitial!

```
775 \newcommand{\ADS@firstpage}{...}
776 \newcommand{\ADS@authorinitial}{A}
```

We also have a whole slew of other fields that can be set. These are all listed in Table 1. Most of them still have to be defined. A lot of these macros are set by other commands, as mentioned in the Table, but some need to be set explicitly here.

\ADS@doi	<p>The user/editor command \DOI is used to set this.</p> <pre>777 \newcommand{\ADS@doi}{https://doi.org/10.22201/ia.01851101p.0000.00.00.00}</pre>
\ADS@journalname	<p>This does not contain any accents at the moment so as not to cause problems—this maybe should be changed though.</p> <pre>778 \newcommand{\ADS@journalname}{% 779 \if@proceedings\@conftitle\space (Eds. \@editors) \fi% 780 Revista Mexicana de Astronom\'\i{}a y Astrof\'\i{}sica% 781 \if@proceedings\space (Serie de Conferencias)\fi% 782 \space Vol. \@volume, pp. \ADS@firstpage--\ADS@lastpage\space (\@year)% 783 \space (http://www.astroscu.unam.mx/\~{\rmaa/}) 784 }</pre>
\ADS@keywords	<p>\ADS@abstract is straightforward, since we already have the text saved as \@abstract. We could do the same with \ADS@keywords but to avoid unwanted formatting we explicitly set it in \keywords (p. 15). \ADS@title is just set to \@rawtitle, which we were already using for another purpose.</p> <pre>785 \let\ADS@title=\@rawtitle 786 \newcommand{\ADS@keywords}{No keywords specified} 787 \newcommand{\ADS@abstract}{No abstract specified}</pre>
\ADS@abstract	
\ADS@title	

Table 1: ADS Bibliographic Records

Code	Description	Macro Name	Comment
%R	Bibliographic Code	\ADS@BibCode	required
%A	Author list	\ADS@authors	required, generate from \indexauthor
%F	Author affiliation	\ADS@affil	format: AA(...) AB(...) ...
%J	Journal Name	\ADS@journalname	
%D	Publication Date	\ADS@fulldate	
%L	Last Page	\ADS@lastpage	generate from label
%T	Title	\ADS@title	required, generate from \title
%C	Abstract Copyright	\ADS@copyright	set to IA-UNAM
%U	URL for electronic document	\ADS@url	set to PDF file
%d	DOI for article	\ADS@doi	set by \DOI
%K	Keywords	\ADS@keywords	set equal to \@keywords
%A	Abstract Text	\ADS@abstract	set equal to \@abstract
%R	References	\ADS@references	generate from the bibliography

\ADS@authors \ADS@authors wants to be in “Other, A. N.” format, but with semi-colons between authors. The most natural way to do this seems to be with \indexauthor (p. 18). We append each author to this macro, which means we must explicitly clear it for each new article (done in \article). .

```
788 \newcommand{\ADS@authors}{}{}
```

\ADS@fulldate \ADS@lastpage \ADS@copyright \ADS@website \ADS@url \SetWebsite \SetMonthNumeric

Other sundry data, together with user commands for bits that can be set by the Editors. The \ADS@url is constructed from the website (currently <http://www.astrosmo.unam.mx/rmaa/>), the journal descriptor (e.g., RMxAC..10/), followed by the path to the PDF file (e.g., PDF/RMxAC..10_HEW1.pdf).

```
789 \newcommand{\ADS@website}{http://www.astrosmo.unam.mx/rmaa/}
790 \newcommand{\ADS@url}{}
791 {\ADS@website\ADS@journal\ADS@volume\ADS@number/PDF/\ADS@journal\ADS@volume\ADS@number\_article}
792 \newcommand{\ADS@number}{}{ }
793 \newcommand{\ADS@fulldate}{00/\ADS@year}
794 \newcommand{\ADS@lastpage}{00}
795 \newcommand{\ADS@copyright}{(C) \ADS@year; Instituto de Astronom\i{a},
796 Universidad Nacional Aut\onoma de M\exico}
797 \newcommand{\SetNumber}[1]{\renewcommand{\ADS@number}{-#1}}
```



```

798 \newcommand{\SetWebsite}[1]{\renewcommand{\ADS@website}{#1}}
799 \newcommand{\SetMonthNumeric}[1]{\renewcommand{\ADS@fulldate}{#1/\ADS@year}}

\ADS@affil These two are somewhat more problematical. Affiliation currently only works
\ADS@references for the first author (see ...) pending redesign of the user interface. References are
now done by wrapping the thebibliography environment to open another
input stream on the same file and search through for the \bibitems.

800 \newcommand{\ADS@references}{}
801 \newcommand{\ADS@affil}{}

```

Define two macros that expand to the strings `\begin{thebibliography}` and `\end{thebibliography}`. Note that the idea for this and much else is inspired by the code for the `docstrip` package. Also define `\StartBibX` in case authors use the more standard `\begin{thebibliography}{} syntax`.

```

802 \edef\EndBib{\expandafter@gobble\string\end\string{thebibliography}\string}}
803 \edef\StartBib{\expandafter@gobble\string\begin\string{thebibliography}\string}}
804 \edef\StartBibX{\expandafter@gobble\string\begin\string{thebibliography}\string\string{stri

```

Define two new logical variables. `\ifAnotherline` is true if we want to read another line from the input stream. It is set to false when we encounter the `\end{thebibliography}`. `\ifInBib` is set to true when we find the `\begin{thebibliography}` and tells us to start saving the following lines.

```

805 \newif\ifAnotherLine
806 \newif\ifInBib

```

`makeOther` We need a macro to change the catcodes of lots of things to other.

```

807 \def\makeOther#1{\catcode`#1=12\relax}

```

`\RereadBiblio` Define a macro to do all the fiddly stuff. This is used at the beginning of thebibliography environment (Sec 2.16).

```

808 \newread\tf@biblio
809 \newcommand{\RereadBiblio}{%

```

Open the current file again for reading

```

810 \begingroup
811 \immediate\openin\tf@biblio=\articlename

```

Everything in a group to be safe. Initialize logicals. Black magic to change catcodes and avoid blank lines being interpreted as `\par`.

```

812 \AnotherLinetrue\InBibfalse
813 \makeOther\ \makeOther\\\makeOther\%%
814 \makeOther#\makeOther^\makeOther^^K%
815 \makeOther\_ \makeOther^^A\makeOther\%%
816 \makeOther~ \makeOther\{ \makeOther\} \makeOther\&%
817 \endlinechar-1\relax

```

Start looping through the file. Read each line to the macro `\Line`. If we have got to EOF or end of biblio then set `\AnotherLinefalse`.

```

818 \loop
819 \read\tf@biblio to \Line
820 \ifx\Line\EndBib\AnotherLinefalse\InBibfalse\fi
821 \ifeof\tf@biblio \AnotherLinefalse\fi

```

If we are in the biblio and the line is not blank then append it to the \ADS@references macro together with a newline.

```
822 \ifInBib
823 \ifx\Line\empty\else\xdef\ADS@references{\ADS@references\Line^^J}\fi
824 \fi
```

Check if the line we just saw was the start of biblio, then repeat the loop if necessary.

```
825 \ifx\Line\StartBib\InBibtrue\fi
826 \ifx\Line\StartBibX\InBibtrue\fi
827 \ifAnotherLine\repeat
828 \immediate\closein\tf@biblio
829 \endgroup
830 }
```

\PadToFourWithDots Utility function for left-padding a number to 4 characters with periods. Used in constructing \ADS@BibCode. This is a very simple algorithm and *requires* that the argument actually be a number—if it is not then dire consequences will result.

```
831 \newcommand{\PadToFourWithDots}[1]{%
832 \ifnum #1 > 999 #1%
833 \else\ifnum #1 > 99 .#1%
834 \else\ifnum #1 > 9 ..#1%
835 \else ...#1%
836 \fi\fi\fi}
837 %% \ifnum \count0 > 999 #1%
838 %% \else\ifnum \count0 > 99 .#1%
839 %% \else\ifnum \count0 > 9 ..#1%
840 %% \else ...#1%
841 %% \fi\fi\fi}
```

\AuthorADS New mechanism for setting the affiliations for ADS. The author labels (AA, AB, ...) are generated using two nested counters. We use the \robustify command from etoolbox so that accented characters in the affiliation addresses do not blow up. The list of accents may need to be expanded.

\ADS@affiliations

```
842 \newcounter{AUTHOR}
843 \newcounter{author}[AUTHOR]
844 \stepcounter{AUTHOR}
845 \newcommand\ADS@affiliations{}
846 \robustify{'}\robustify{\i}\robustify{\~}\robustify{\'}
847 \def\AuthorADS#1#2{%
848 \begingroup
849 \def\ORCIDiD##1{<ID system="ORCID">##1</ID>}
850 \def\Email##1{<EMAIL>##1</EMAIL>}
851 \def\Affil##1{##1}
852 \stepcounter{author}
853 \ifthenelse{\value{author} > 26}{\stepcounter{AUTHOR}\stepcounter{author}}{}
854 \ifthenelse{\equal{\ADS@affiliations}{\@rmaempty}}{%
855 \xdef\ADS@affiliations{\Alph{AUTHOR}\Alph{author} (#2) }
856 }{%
857 \xdef\ADS@affiliations{\ADS@affiliations, \Alph{AUTHOR}\Alph{author} (#2) }
858 }%
859 \endgroup
860 }
```

```

\ADS@dumpdata is the macro that actually does the job of writing out all the data
\ADS@write to an auxiliary file, using \ADS@write to write each field. The file is set up with
\ADS@openfile, which currently is done in the TOC of a book. The new multi-
author affiliations are used if \ADS@affiliations has been set, otherwise it
falls back to the single-author version \ADS@affil.

861 \newcommand{\ADSsfield}[2]{\relax}
862 \newcommand{\ADSvfield}[2]{\relax}
863 %%\renewcommand{\ADSsfield}[12]{\%#1 #2}
864 \newcommand{\ADS@dumpdata}
865 {
866   \ADS@write{\string\begin{ADSarticle}}
867   \ADS@WRITE{\string\ADSsfield{R}{\ADS@BibCode}}
868   \ADS@write{\string\ADSsfield{A}{\ADS@authors}}
869   \ifthenelse{\equal{\ADS@affiliations}{\@rmaaEmpty}}{\%
870     {\ADS@sanitize\ADS@write{\string\ADSsfield{F}{AA(\ADS@affil)}}}
871   }{\%
872     {\ADS@sanitize\ADS@write{\string\ADSsfield{F}{\ADS@affiliations}}}}
873 }
874 \ADS@write{\string\ADSsfield{J}{\ADS@journalname}}
875 \ADS@write{\string\ADSsfield{D}{\ADS@fulldate}}
876 \ADS@write{\string\ADSsfield{L}{\ADS@lastpage}}
877 {\ADS@sanitize\ADS@write{\string\ADSsfield{T}{\ADS@title}}}
878 \ADS@write{\string\ADSsfield{C}{\ADS@copyright}}
879 \ADS@write{\string\ADSsfield{d}{\ADS@doi}}
880 \ADS@write{\string\ADSsfield{U}{\ADS@url}}
881 \ADS@write{\string\ADSsfield{K}{\ADS@keywords}}
882 {\ADS@sanitize\ADS@write{\string\ADSsfield{B}{\ADS@abstract}}}
883 \ADS@write{\string\ADSsfield{Z}{\ADS@references}}
884 \ADS@write{\string\end{ADSarticle}}
885 }
886 %%\newcommand{\ADS@write}[1]{\if@book\addtocontents{ads}{#1}\fi}
887 %%\newcommand{\ADS@openfile}{\@starttoc{ads}}
888 \newcommand{\ADS@write}[1]{\set@display@protect\immediate\write\tf@ads{#1}}
889 \newcommand{\ADS@WRITE}[1]{\immediate\write\tf@ads{#1}}
890 \newcommand{\ADS@openfile}{\%
891   \newwrite\tf@ads%
892   \immediate\openout\tf@ads\jobname.ads\relax
893   \ADS@WRITE{\ADS@preamble}}
894 \newcommand{\ADS@closefile}{\ADS@WRITE{\ADS@postamble}}
895 \def\ADS@preamble{%
896   %% \string\documentclass{article}
897   %% \string\begin{document}
898 }
899 \def\ADS@postamble{%
900   %% \string\end{document}
901   \string%\string% Local Variables:~J
902   \string%\string% mode: LaTeX~J
903   \string%\string% mode: Font-lock~J
904   \string%\string% End:~J
905 }

```

Cunning trick to get the page numbers from \pageref. Put a label on the first and last page of the document using \AtBeginDocument and \AtEndDocument. This way won't work for the book option. In that case, we do it by defining \@endofarticlehook and \@begofarticlehook as parallels to \AtEndDocument and \AtBeginDocument. Note that we have to defer adding \@begofarticlehook to \AtBeginDocument to make sure it comes after the redefinitions of \ref and \label.

```
906 \if@book\AtEndDocument{\ADS@closefile}\else
907 %\AtBeginDocument{\@begofarticlehook}
908 \AtEndDocument{\@endofarticlehook}
909 \fi
```

\@begofarticlehook

Since we are getting more and more things that need to be done at the beginning of every article, frontsection, etc we define a sister hook to \@endofarticlehook. This hook does the following:

1. Labels the first page
2. Sets \ADS@firstpage
3. runs and then clears \indexauthor@deferlist
4. resets the keyword counter

It is executed in the following circumstances:

1. At \begin{document} for standalone files
2. At \begin{document} for each included file
3. At beginning of front sections
4. At beginning of TOC
5. At beginning of Author Index
6. At beginning of abstracts

For some reason, this is not always within the right group, so we use \xdef just to be sure.

```
910 \newcommand{\@begofarticlehook}{%
911   \if@frontmatter\frontlabel{RMAAFirstPage}\else\label{RMAAFirstPage}\fi%
912   \xdef\ADS@firstpage{\@arabic{\c@page}}%
913   \if@book\else\makeindex\fi % needed so default index is defined in stand-alone articles
914 %%   \indexauthor@deferlist
915 %%   \xdef\indexauthor@deferlist{}
916   \inpreamblefalse
917   \setcounter{kwdcounter}{0}
918 }
```

`\@endofarticlehook` This is a hook to be run at the end of each article currently, it just labels the last page and writes out all the ADS data to an auxiliary file. It should not produce any printed output. It is modelled on the `\AtEndDocument` command, to which it reduces in the case of a single article.

```

919 \newcommand{\@endofarticlehook}{%
920   \if@debug{\ClassWarning{rmaa}{***Doing Hook***}}\fi
921   \if@debug{\ClassWarning{rmaa}{ADSabstract is: \ADS@abstract}}\fi
922   \clearpage\rmaa@lastpagelabel\if@book\ADS@dumpdata\fi
923   \ifx\NotesList\@rmaaEmpty\else\OutputNotes\fi
924   \if@debug{\ClassWarning{rmaa}{Notes list is: \NotesList}}\fi
925 }

```

`\rmaa@lastpagelabel` New version of last page label command copied from Jeff Goldberg's `lastpage.sty` package - we can't just use `\label` here in case the output routine for the last page has already been called. Instead, we first explicitly clear the page, step back the page counter, explicitly write to the .aux file, then restep the page counter again.

But this will conflict with the `hyperref` package, which does labels differently. Compensate for that by using the five-argument form.

Also set the `\ADS@LastPage` macro to the appropriate number.

```

926 \newcommand{\rmaa@lastpagelabel}{%
927   \addtocounter{page}{-1}%
928   \immediate\write\@auxout{\string
929     \newlabel{\articlename:RMAALastPage}{{}{\thepage}{}{}{}}}%
930   \edef\ADS@lastpage{\thepage}%
931   \addtocounter{page}{1}}

```

2.11 Deal with explicit change in number of columns

Sometimes, when formatting a book, we need to switch between one-column articles and two-column articles. For this to work, we need to wrap the standard \LaTeX commands to set the `\@rmtwocol` flag appropriately and also reset the package default values of all scalable lengths. .

```

932 \let\latexonecolumn=\onecolumn
933 \let\latextwocolumn=\twocolumn
934 \renewcommand{\onecolumn}{\@rmtwocolfalse\@package@default@lengths\latexonecolumn}
935 \renewcommand{\twocolumn}{\@rmtwocoltrue\@package@default@lengths\latextwocolumn}

```

2.12 The actual formatting of the title

Note, we have to redefine the `\maketitle` command to use the numbered footnotes. This means we needn't use the `atbeginend` stuff.

```

936 \renewcommand{\maketitle}{\par
937   \beginingroup

```

Don't switch to marked footnotes. This is consistent with existing style but I'm not sure I like it

```

938   %% \renewcommand\thefootnote{\fnsymbol{footnote}}%
939   %% \def\@makefnmark{\hbox to\z@{${\m@th^{\@thefnmark}}$}\hss}}%
940   \def\@makefnmark{\textsuperscript{\@thefnmark}\hspace{-0.2em}}%

```

```

941 \long\def\@makefntext##1{\parindent 1em\noindent
942   \hbox to 1.8em{\hss$\m@th^{\@thefnmark}$}##1}%
943 \if@rmtwocol
944 { \if@debug{\ClassWarning{rmaa}{TWO COLUMN}}\fi
945   \twocolumn[\@maketitle]%
946 }
947 \else
948 { \if@debug{\ClassWarning{rmaa}{ONE COLUMN}}\fi
949   \newpage
950   \global\@topnum\z@    % Prevents figures from going at top of page.
951   \if@manuscript \@MSmaketitle \else \@maketitle \fi
952 }
953 \fi
954 \if@manuscript\else\thispagestyle{rmaafirstpage}\@thanks\fi
955 \ifx\NotesList\@rmaaEmpty\else{%
956   \NoteMark{1--\arabic{notecounter}}\vspace*{-2\baselineskip}%
957 }\fi%
958 \endgroup

```

Don't reset footnote counter (not sure whether this is good thing or not).

```

959 %% \setcounter{footnote}{0}%
960 \let\thanks\relax\let\affil\relax\let\altaffil\relax
961 \let\maketitle\relax\let\@maketitle\relax
962 \gdef\@thanks{}\gdef\@author{}\gdef\@title{}

```

\@kwhwidth Redefine \@maketitle to include the abstract, resumen and keywords. Note
\@kwtwidth that in the manuscripty style we use \@MSmaketitle instead.

```

963 \newlength{\@kwhwidth}\newlength{\@kwtwidth}
964 \newcommand\reviewname{Review}
965 \renewcommand{\@maketitle}{%
966   \newpage
967   \null
968   \if@reviewarticle
969     \smallskip
970     {\large\bfseries\itshape\reviewname}%
971     \bigskip
972   \else
973     \vskip\@before@title@skip%
974   \fi
975   \begin{center}%
976     {\@title \par}%
977     \vskip\@before@author@skip%
978     \parbox{\rmaa@AuthorWidthFrac\textwidth}{\centering
979       \lineskip\@between@author@skip%
980       \@author
981       \par}
982     %% this should be replaced with 'Submitted to...' for preprints
983     \if@printdates
984       \vskip\@before@dates@skip%
985       \if@preprint
986         \rmaa@ReceivedStyle{Submitted to RMxAA \@received}
987       \else
988         \rmaa@ReceivedStyle{Received \@received; accepted \@accepted}
989       \fi
990     \fi
991     \if@manuscript
992       \rmaa@ReceivedStyle{Submitted to RMxAA \@received}

```

```

993 \fi
994 \if@guide
995 \rmaa@ReceivedStyle{Version \rmaa@version, \rmaa@date}
996 \fi
997 \vskip\@before@abstract@skip%
998 \if@abstractpresent
999 \parbox{\rmaa@AbstractWidthFrac\textwidth}{%
1000 \setlength{\parindent}{0.9cm}%
1001 \centerline{\rmaa@AbstractHeaderStyle{Abstract}}\par%
1002 \vskip\@after@abstracthead@skip%
1003 \if@newstyle\noindent\fi\@abstract
1004 \vskip\@between@abstract@skip%
1005 \centerline{\rmaa@AbstractHeaderStyle{Resumen}}\par%
1006 \vskip\@after@abstracthead@skip%
1007 \if@newstyle\noindent\fi\@resumen
1008 \if@setresumen\else\@abstract\fi % append english abstract if
1009 % spanish one not set
1010 \if@guide\else %do not use keywords for guide
1011 \vskip\@before@kwd@skip%
1012 % Format the Key Words with hanging indentation:
1013 % They are put in a \parbox with width equal to the line width
1014 % minus the width of the header.
1015 { % Widths of keyword
1016 \settowidth{\@kwhwidth}{\@keywordheader~} % header and
1017 \setlength{\@kwtwidth}{\linewidth} % keyword text
1018 \addtolength{\@kwtwidth}{-\@kwhwidth} %
1019 \noindent\@keywordheader~\parbox[t]{\@kwtwidth}{%
1020 \rmaa@KeywordStyle{\boldmath\uppercase{\@keywords}}}%
1021 \fi
1022 }
1023 \fi
1024 \end{center}%
1025 \vspace*{\@afterkwdskip}
1026 \par
1027 }
1028 \newlength{\@afterkwdskip}\setlength{\@afterkwdskip}{\z@}

\reviewarticle User command to specify a review article. Must be used in preamble. Main effect
\reviewtoc is to place the text "Review" before the article title. Also add command for setting
\reviewlof a table of contents and a list of figures at the beginning of the article.
1029 \newcommand{\reviewarticle}{\@reviewarticlettrue}
1030 \newcommand\reviewtoc{%
1031 \section*{CONTENTS}%
1032 \@starttoc{rtc}%
1033 }
1034 \newcommand\reviewlof{%
1035 \section*{LIST OF FIGURES}%
1036 \@starttoc{lof}%
1037 }

\l@section
1038 \renewcommand*\l@section[2]{%
1039 \ifnum \c@tocdepth >\z@
1040 \addpenalty\@secpenalty
1041 \addvspace{0.8em \@plus\p@}%
1042 \setlength\@tempdima{1.5em}%

```

```

1043 \beginngroup
1044 \parindent \z@ \rightskip \@pnumwidth
1045 \parfillskip -\@pnumwidth
1046 \leavevmode %\bfseries
1047 \advance\leftskip\@tempdima
1048 \hskip -\leftskip
1049 #1\nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss #2}\par
1050 \endgroup
1051 \fi}

```

`\@MSmaketitle` A special version of `\@maketitle` for the manuscript option. This can deal with a multi-page abstract/resumen. Not very well, mind.

```

1052 \newcommand{\@MSmaketitle}{%
1053 \if@debug\ClassInfo{rmaa}{Using special MS maketitle command}\fi
1054 \newpage
1055 {
1056 \thispagestyle{rmaafirstpage}
1057 % \setlength{\parindent}{0pt}
1058 \null\vskip 2ex
1059 \begin{center}
1060 \@title\par
1061 \@author\par
1062 \rmaa@ReceivedStyle{%
1063 \ifx\@received\@rmaaEmpty
1064 Draft version: \@date
1065 \else
1066 Received: \@received
1067 \ifx\@accepted\@rmaaEmpty
1068 \else
1069 ; Accepted: \@accepted
1070 \fi
1071 \fi}\par
1072 \end{center}
1073 \@thanks
1074 \centerline{\rmaa@AbstractHeaderStyle{Resumen}}
1075 \noindent\@resumen\par\vskip 2ex
1076 \centerline{\rmaa@AbstractHeaderStyle{Abstract}}
1077 \noindent\@abstract\par\vskip 2ex
1078 \noindent\@keywordheader~\rmaa@KeywordStyle{\@keywords}\par
1079 % \@keywordheader~\rmaa@KeywordStyle{\uppercase{\@keywords}}\par
1080 }%
1081 }

```

2.13 The sectioning commands

```

\section Redefine all the standard commands to use these lengths.
\subsection 1082 \renewcommand\section{\@startsection {section}{1}{\z@}%
\subsubsection 1083 {\abovesectionskip}%
\subsubsection 1084 {\belowsectionskip}%
\paragraph 1085 %% how do we get upper case here
\subparagraph 1086 {\centering\reset@font\normalsize}}
1087 \renewcommand\subsection{\@startsection{subsection}{2}{\z@}%
1088 {\abovesectionskip}%
1089 {\belowsectionskip}%
1090 {\centering\reset@font\normalsize\itshape}}

```



```

1091 \renewcommand\subsubsection{\@startsection{subsubsection}{3}{\z@}%
1092         {\abovesectionskip}%
1093         {\belowsectionsip}%
1094         {\centering\reset@font\normalsize\itshape}}
1095 \renewcommand\paragraph{\@startsection{paragraph}{4}{\z@}%
1096         {\aboveparaskip}%
1097         {\belowparaskip}%
1098         {\reset@font\normalsize\bfseries}}
1099 \renewcommand\subparagraph{\@startsection{subparagraph}{5}{\parindent}%
1100         {\aboveparaskip}%
1101         {\belowparaskip}%
1102         {\reset@font\normalsize\bfseries}}

```

secnumdepth Make sure that we number the subsubsections—this is done by default in the article class but not the book class, which is why we must set it explicitly here.

```
1103 \setcounter{secnumdepth}{3}
```

\thesubsection For subsection and subsubsection, we want the numbers to be roman but the title
\thesubsubsection to be italic. This seems the easiest way to go about it.

```

1104 \renewcommand{\thesubsection}{\upshape\thesection.\@arabic\c@section}}
1105 \renewcommand{\thesubsubsection}{\thesubsection\upshape.\@arabic\c@subsubsection}}

```

\@secntformat Add “.” to the number here so we can remove it from \thesection, etc. Reduce gap between number and title WJH 27 Jan 1995

```
1106 \def\@secntformat#1{\csname the#1\endcsname .\hskip 0.4em}
```

\@sect I didn’t really want to mess with the \@sect command, but it was the only way I could manage to force upper case. Other than the commented parts, it is identical to the standard version.

```

1107 \def\@sect#1#2#3#4#5#6[#7]#8{
1108   \ifnum #2>\c@secnumdepth
1109     \let\@svsec\@empty
1110   \else
1111     \refstepcounter{#1}%
1112     \let\@protect\protect
1113     \def\protect{\noexpand\protect\noexpand}%
1114     \edef\@svsec{\@secntformat{#1}}%
1115     \let\protect\@protect
1116   \fi

```

This is the bit I changed (27 Jan 1995). Use upper case for \section, use mixed case for the rest.

```

1117   \ifnum #2=1
1118     \def\sec@upcase##1{\uppercase{##1}}%
1119     \def\sec@shape{\upshape}%
1120   \else
1121     \def\sec@upcase##1{\relax{##1}}%
1122     \def\sec@shape{\itshape}%
1123   \fi
1124   \@tempskipa #5\relax
1125   \ifdim \@tempskipa>\z@
1126     \begingroup #6\relax

```

```

1127         \@hangfrom{\hskip #3\relax\@svsec}%
1128         {\interlinepenalty \@M \sec@upcase{#8}\par}%
1129     \endgroup
1130     \csname #1mark\endcsname{#7}%

```

Only write TOC entries if doing the Guide style.

```

1131     \if@guide
1132         \addcontentsline{toc}{#1}{%
1133             \ifnum #2>\c@secnumdepth \else
1134                 \protect\numberline{\csname the#1\endcsname}%
1135             \fi
1136             #7}%
1137     \fi

```

Also allow per-article TOC for review papers

```

1138     \if@reviewarticle
1139         \ifnum #2>2 \else
1140             \addcontentsline{rtc}{#1}{%
1141                 \protect\numberline{\csname the#1\endcsname}%
1142                 \sec@upcase{\sec@shape #7}}%
1143         \fi
1144     \fi
1145 \else
1146     \def\@svsechd{#6\hskip #3\relax %% \relax added 2 May 90
1147         \@svsec #8\csname #1mark\endcsname{#7}%
1148         \if@guide
1149             \addcontentsline{toc}{#1}{%
1150                 \ifnum #2>\c@secnumdepth \else
1151                     \protect\numberline{\csname the#1\endcsname}%
1152                 \fi
1153                 #7}%
1154             \fi
1155         }%
1156     \fi
1157     \@xsect{#5}

```

2.14 Appendices

Make sure that appendices in individual articles work properly. We copy the definition from the article class (the book one doesn't do what we want).

`appendices` This uses an environment `appendices` inside of which each `\section` will become a separate appendix. Note that the appendices must come before the references (otherwise the full addresses mechanism will not work properly). We make the equation numbering be subordinate to the appendix (equations A12, B6, etc). Finally, we have a `medskip` followed by `APPENDICES` to introduce them.

```

1158 \newenvironment{appendices}{\par
1159     \begingroup
1160     \setcounter{section}{0}%
1161     \setcounter{subsection}{0}%
1162     \renewcommand\thesection{\@Alph\c@section}
1163     \renewcommand\theequation{\thesection\arabic{equation}}
1164     \medskip
1165     \section*{APPENDICES}}
1166 {\endgroup}

```

appendix If there is only one appendix, then use appendix environment instead.

```

1167 \renewenvironment{appendix}{\par
1168   \begin{group}
1169   \setcounter{section}{0}%
1170   \setcounter{subsection}{0}%
1171   \renewcommand\thesection{\@Alph\c@section}
1172   \renewcommand\theequation{\thesection\arabic{equation}}
1173   \medskip
1174   \section*{APPENDIX}
1175 }{\endgroup}

```

2.15 Floating thingies

```

1176 \renewcommand{\thetable}{\@arabic\c@table}
1177 \renewcommand{\thefigure}{\@arabic\c@figure}
1178 \renewcommand{\figurename}{Fig.}
1179 \renewcommand{\tablename}{TABLE}
1180 %\renewcommand{\fnum@table}{\MakeUpperCase{\tablename}~\thetable}

```

For some reason, I have to write ‘TABLE’ explicitly here. If I use \tablename, it gets converted to mixed case—God knows why. \figurename is also being ignored.

```

1181 \renewcommand{\fnum@table}{TABLE~\thetable}
1182 \renewcommand{\fnum@figure}{Fig.~\thefigure}

```

Do captions in 9 pt face in the main journal style and in new-style anything.

```

1183 \long\def\@makefigcap#1#2{%
1184   \if@proceedings\else\small\fi
1185   \if@newstyle\small\fi
1186   \vskip\abovecaptionskip
1187   \sbox\@tempboxa{#1. #2}%
1188   \ifdim \wd\@tempboxa >\hsize
1189     #1. #2 \par
1190   \else
1191     \global \@minipagefalse
1192     \hb@xt@\hsize{\hfil\box\@tempboxa\hfil}%
1193   \fi
1194   \vskip\belowcaptionskip}

```

Make sure table caption is upper case.

```

1195 \long\def\@maketabcap#1#2{%
1196   \hbox to\hsize{\hfil #1 \hfil}
1197   \vskip 6pt
1198   \centering\MakeUpperCase{#2}\par
1199   \vskip 6pt}
1200 \newlength{\@roottabcapwidth}
1201 \long\def\@makerottabcap#1#2{%
1202   \setbox\@tempboxa\hbox{\MakeUpperCase{#2}}%
1203   \ifdim\wd\@tempboxa >.8\vsiz
1204     \setlength{\@roottabcapwidth}{.8\vsiz}
1205   \else
1206     \setlength{\@roottabcapwidth}{\wd\@tempboxa}
1207   \fi
1208   \rotatebox{90}{%
1209     \begin{minipage}{\vsiz}\centering
1210     \begin{minipage}{\@roottabcapwidth}\centering
1211       #1\ \vskip 6pt \MakeUpperCase{#2}

```

```

1212     \end{minipage}%
1213 \end{minipage}
1214 }%
1215 \hskip 6pt
1216 }
1217
1218 \newenvironment{Sideways}
1219   {\begin{sideways}\begin{minipage}{\vsize}\centering}
1220   {\end{minipage}\end{sideways}}
1221
1222 \newenvironment{Sidewaystable}
1223 {%
1224   \let\oldcaption=\caption%
1225   \def\caption{
1226     \def\@captive{table}\renewcommand{\@makecaption}{\@maketabcap}
1227     \oldcaption
1228   \begin{sidewaystable}\centering}
1229   {\end{sidewaystable}\let\caption=\oldcaption}
1230 \newenvironment{Sidewaystable*}
1231 {%
1232   \let\oldcaption=\caption%
1233   \def\caption{
1234     \def\@captive{table}\renewcommand{\@makecaption}{\@maketabcap}
1235     \oldcaption
1236   \begin{sidewaystable*}\centering}
1237   {\end{sidewaystable*}\let\caption=\oldcaption}

```

Not sure why we need to stick these lines in.

```

1238 \renewenvironment{figure}
1239   {\renewcommand{\@makecaption}{\@makefigcap}\@float{figure}}
1240   {\end@float}
1241 \renewenvironment{figure*}
1242   {\renewcommand{\@makecaption}{\@makefigcap}\@dblfloat{figure}}
1243   {\end@dblfloat}
1244 \renewenvironment{table}
1245   {\renewcommand{\@makecaption}{\@maketabcap}\@float{table}}
1246   {\end@float}
1247 \renewenvironment{table*}
1248   {\renewcommand{\@makecaption}{\@maketabcap}\@dblfloat{table}}
1249   {\end@dblfloat}

```

Redefine \@caption so that we don't bother with the list of figures. This saves us having to worry about fragile commands in the captions.

```

1250 \long\def\@caption#1[#2]#3{%
1251   \par
1252   %% \addcontentsline{\csname ext@#1\endcsname}{#1}%
1253   %% {\protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}}%
1254   \begingroup
1255     \@parboxrestore
1256     \if@minipage
1257       \setminipage
1258     \fi
1259     \normalsize
1260     \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces #3}\par
1261   \endgroup}

```

Make tables not quite so cramped. Allow \hline\hline to give a poor man's thick rule.

```

1262 \renewcommand{\arraystretch}{1.15}
1263 \setlength{\doublerulesep}{0.4pt}

\tablecols \tablecols is a user command for setting the number of columns. It is used by
\@tablecols commands that try and span the entire table (I think there must be a better way
\captioncontinued of achieving this). \captioncontinued is a user command for setting the
caption of a continued table on the next page.

1264 \newcommand{\tablecols}[1]{\renewcommand{\@tablecols}{#1}}
1265 \newcommand{\@tablecols}{1}
1266 \newcommand{\captioncontinued}{%
1267 \multicolumn{\@tablecols}{c}{\addtocounter{table}{-1}TABLE~\thetable\ (CONTINUED)} \\\ \\\
1268 }

```

2.15.1 Footnotes in tables

```

\tablenotemark Old user commands \tablenotemark{MARK}, \tablenote{MARK}{TEXT}—
\tablenote now deprecated.

\tablenoteskip 1269 \newcommand\tablenotemark[1]{\mathrm{#1}$}
1270 \newcommand\tablenote[2]{\if@proceedings\else\small\fi $\mathrm{#1}$ #2}
1271 \newcommand\tablenoteskip{\[0.5\baselineskip]}

\tabnotemark Alternative way of doing footnotes in tables.
\tabnotetext 1272 \newcommand{\tabnotemark}[1]{\textsuperscript{\lowercase{#1}}}
\tabnotetextTWO 1273 %\newcommand{\tabnotetextTWO}[4]{\tabnotetext{#1}{#2}\tabnotetext{#3}{#4}}
1274 \newcommand{\tabnotetextTWO}[4]{%
1275 \multicolumn{\@tablecols}{l}{%
1276 \parbox{0.5\tabnotewidth}{\small\textsuperscript{#1}#2}%
1277 \parbox{0.5\tabnotewidth}{\small\textsuperscript{#3}#4}%
1278 }%
1279 \\\}
1280 \newcommand{\tabnotetext}[2]{%
1281 \multicolumn{\@tablecols}{@{}p{\tabnotewidth}@{}{\small\textsuperscript{#1}#2}\\\}
1282 \newlength{\tabnotewidth}

changemargin
1283 % Command to allow margins to be changed on the fly. Useful to allow
1284 % tables and Figures to protrude into the margins.
1285 %
1286 % \changes{3.24}{2007/09/14}{Added \texttt{changemargin} environment
1287 % (copied from TeX FAQ).}
1288 \newenvironment{changemargin}[2]{%
1289 % From TeX FAQ http://www.tex.ac.uk/cgi-bin/texfaq2html?label=chngmargonfly
1290 \begin{list}{}{%
1291 \setlength{\topsep}{0pt}%
1292 \setlength{\leftmargin}{#1}%
1293 \setlength{\rightmargin}{#2}%
1294 \setlength{\listparindent}{\parindent}%
1295 \setlength{\itemindent}{\parindent}%
1296 \setlength{\parsep}{\parskip}%
1297 }%
1298 \item[]{\end{list}}

```

2.16 The bibliography and references

`\beforebibliostkip` I'm not entirely sure why I introduced these two commands, since directly putting `\vspace` before and after `\begin{thebibliography}` seems to work well enough.

```
1299 \newlength{\beforebibliostkip}
1300 \setlength{\beforebibliostkip}{0pt}
1301 \newlength{\afterbibliostkip}
1302 \setlength{\afterbibliostkip}{0pt}
```

`thebibliography` The environment itself is done as starred section with extra vertical space after heading. This space is currently zero. In the book style we do the cunning trick with rereading the file in order to get the references into the `\ADS@references` macro.

```
1303 \renewenvironment{thebibliography}{%
1304   \if@book\RereadBiblio\fi
1305   %% \vspace*{\beforebibliostkip}
1306   \section*{REFERENCES} \frenchspacing
1307   %% \vspace*{\afterbibliostkip}
1308   \small
```

The references themselves are set as a list in order to get the hanging indentation. They are done in a smaller font and with french spacing so we needn't worry about the distinction between sentence-ending periods and abbreviations.

```
1309 \list{\null}{\leftmargin 1.5em\labelwidth\z@\labelsep\z@\itemindent -1.5em
1310   \itemsep\z@\parsep\z@\usecounter{enumi}}
1311 \sloppy\clubpenalty4000\widowpenalty4000
1312 \sfcode'\.=1000\relax\@biblisttrue}
1313 {\endlist\@biblistfalse\normalsize\@outputaddressesifnecessary}
```

2.17 Uniquification of cross-references

`\articlename` In order that the `\label{}` command in individual articles be guaranteed to give a unique anchor, we append the article name (held in the `\articlename` command) to each key. This requires redefinition of the following commands: `\cite`, `\nocite`, `\ref`, `\pageref`, `\label`.

`\oldcite` The original versions of these commands are saved as `\oldcite`, `\oldnocite`, etc.

`\oldref` The uniquifying of cross-references is now always done, so we don't get multiply-defined labels in the single article case

```
\oldpageref
\oldlabel 1314 \newcommand{\articlename}{anon}
1315 \AtBeginDocument{
1316   \let\oldcite=\cite
1317   \let\oldnocite=\nocite
1318   \let\oldref=\ref
1319   \let\oldpageref=\pageref
1320   \let\oldlabel=\label
1321 }
```

Uniquify all cross-references by prepending the article name. This now has to go into `\AtBeginDocument` so it is working on the new versions that `hyperref.sty`

has set up. Then we need to put the `\@begofarticlehook` afterwards, so that the first page label is using the new definitions. If `amsmath` is loaded, then we also need to patch the special label command that they use.

```

1322 \AtBeginDocument{
1323   \renewcommand{\ref}[1]{\oldref{\articlename:#1}%
1324     \if@debug{\ClassInfo{rmaa}{Reference to \articlename:#1}}\fi}
1325   \renewcommand{\pageref}[1]{\oldpageref{\articlename:#1}%
1326     \if@debug{\ClassInfo{rmaa}{Page reference to \articlename:#1}}\fi}
1327   \renewcommand{\label}[1]{\oldlabel{\articlename:#1}%
1328     \if@debug{\ClassInfo{rmaa}{Label for \articlename:#1}}\fi}%
1329   \ifdef{\label@in@display}{%
1330     \let\oldlabel@in@display=\label@in@display
1331     \renewcommand{\label@in@display}[1]{\oldlabel@in@display{\articlename:#1}%
1332       \if@debug{\ClassInfo{rmaa}{AMSTeX Label for \articlename:#1}}\fi}%
1333   }{}
1334   \@begofarticlehook
1335 }%
```

Citations are more complicated since they can contain a list of keys. These are really only here for use with the `rmaacite` package, which is utterly deprecated (02 Jan 2003) now that I have the `natbib` code working. The command `\cite` should *not* be used with `natbib`: use `\citep`, `\citete`, etc. instead.

```

1336 \renewcommand{\nocite}[1]{\@bsphack
1337   \@for\@citeb:=#1\do{%
1338     \edef\@citeb{\expandafter\@firstofone\@citeb:\articlename}%
1339     \if@files\immediate\write\@auxout{\string\citation{\@citeb}}\fi
1340     \ifundefined{b@\@citeb:\articlename}{\G@refundefinedtrue
1341       \latex@warning{Citation '\@citeb' undefined}}{}%
1342     \@esphack}
1343 \renewcommand{\cite}[1]{\oldcite{#1:\articlename}}
1344 %   \end{macrocode}
1345
1346
1347 % Horrible fiddling with the bibliography citation mechanism.
1348 % This has to be globally available in case rmaacite puts it in the
1349 % \texttt{.aux} file.
1350 %   \begin{macrocode}
1351 \def\lbbibcite#1#2#3{\global\@namedef{b@#1}{#2}
1352   \global\@namedef{by@#1}{#3}}
```

`\oldbibitem` Of course, `\bibitem` needs to get the uniquification treatment as well. While we are at it, we redefine it to use consecutive integers for the key if the user leaves it blank (using the counter `rmaabib`). This allows one to put `\bibitem{}` for all your references without getting annoying messages about multiply-defined labels.

We also take the opportunity to insert the optional argument to `\bibitem` if it is missing in the form `Author(DATE)` so that `natbib` doesn't try to do numerical citations. `Natbib` already provides a hook `\@extra@b@citeb` to help uniquify the citation key, so we just plug into that. However, it puts it *after* the original key, not before as I had had it. Easiest solution is to change the way that I do it. 02 Jan 2003. Note that the `\@extra@b@citeb` does not get written to the `.aux` file in the `\citation` command but it does work.

```

1353 \if@natbib\def\@extra@b@citeb{: \articlename}\fi
```

```

1354 %%\else
1355 \let\oldbibitem\bibitem
1356 \newcommand{\@rmaabibArg}{}
1357 \newcommand{\@rmaaspace}{}
1358 \newcounter{rmaabib}
1359 \if@natbib
1360 \renewcommand{\bibitem}[2][ABC(2003)]{%
1361   \renewcommand{\@rmaabibArg}{#2}
1362   \ifx\@rmaabibArg\@rmaaspace
1363     \addtocounter{rmaabib}{1}
1364     \oldbibitem[#1]{\thermaabib:\articlename}
1365   \else\ifx\@rmaabibArg\@rmaaspace
1366     \addtocounter{rmaabib}{1}
1367     \oldbibitem[#1]{\thermaabib:\articlename}
1368   \else
1369     \oldbibitem[#1]{#2:\articlename}
1370   \fi\fi
1371   \renewcommand{\@rmaabibArg}{}
1372 }
1373 \else
1374 \renewcommand{\bibitem}[1]{%
1375   \renewcommand{\@rmaabibArg}{#1}
1376   \ifx\@rmaabibArg\@rmaaspace
1377     \addtocounter{rmaabib}{1}
1378     \oldbibitem{\articlename:\thermaabib}
1379   \else\ifx\@rmaabibArg\@rmaaspace
1380     \addtocounter{rmaabib}{1}
1381     \oldbibitem{\articlename:\thermaabib}
1382   \else
1383     \oldbibitem{\articlename:#1}
1384   \fi\fi
1385   \renewcommand{\@rmaabibArg}{}
1386 }
1387 \fi
1388 %%\fi

```

oldpcite Then, we need to repeat the above scheme, but for the rmaacite definition.

```

oldscite 1389 \newcommand{\@redefinebibitem}{%
1390   \let\oldbibitem\bibitem
1391   \let\oldcite\cite
1392   \let\oldpcite\pcite
1393   \let\oldscite\scite
1394   \def\bibitem[##1<##2>]##3{%
1395     \renewcommand{\@rmaabibArg}{##3}
1396     \ifx\@rmaabibArg\@rmaaspace
1397       \addtocounter{rmaabib}{1}
1398       \oldbibitem[##1<##2>]{\thermaabib:\articlename}
1399     \else\ifx\@rmaabibArg\@rmaaspace
1400       \addtocounter{rmaabib}{1}
1401       \oldbibitem[##1<##2>]{\thermaabib:\articlename}
1402     \else
1403       \oldbibitem[##1<##2>]{##3:\articlename}
1404     % trust the author here
1405   %% \oldbibitem[##1<##2>]{##3}
1406   \fi\fi
1407 }
1408 }

```


2.18 HTML Table of Contents

`\HyperTOCEntry` These commands are used to write information to the `.htoc` file, which is used
`\HyperTOCpart` in generating a Web Page of the Table of Contents. Since they only ever appear
`\HyperTOCmeeting` preceded by `\protect` in the argument to an `\addtocontents` command, they
`\HyperTOCeditors` should never need to be expanded by the macros. However, we define them here
`\HyperTOCpreamble` just in case ...

```
1409 \newcommand{\HyperTOCEntry}[3]{\relax}
1410 \newcommand{\HyperTOCpart}[1]{\relax}
1411 \newcommand{\HyperTOCmeeting}[3]{\relax}
1412 \newcommand{\HyperTOCeditors}[1]{\relax}
1413 \newcommand{\HyperTOCpreamble}{}{\relax}
```

2.19 Formatting the poster abstracts

These can now be used without using the book option.

```
1414
1415 \newcommand{\@makeminititle}{%
1416   \newpage
1417   \null
1418   \vskip 3em%
1419   \begin{center}%
1420     {\@title \par}%
1421   \end{center}
1422   \vskip 3em%
1423 }
1424
1425 \newif\if@abstractsads
1426 \@abstractsadsfalse
1427 \newcommand\abstractsADS{\@abstractsadstrue}
1428
1429 \if@book\RequirePackage{multicol}\fi
1430 \newenvironment{abstracts}[1][Abstracts of Contributed Papers]{%
1431   %% First, make sure we start on an odd page (06 Jun 2000)
1432   \if@book\clearpage\thispagestyle{empty}\cleardoublepage\fi
1433   %%
1434   \renewcommand{\articlename}{ABSTRACTS}
1435   \title{#1}\shortauthor{Abstracts}\shorttitle{Abstracts}
1436   \listofauthors{}
1437   \if@book
1438     \addcontentsline{toc}{chapter}{\protect\@fiddleauthors{\@TOCtitle}{\rmaaTOCauthors}}%
1439     \addtocontents{htc}{\protect\HyperTOCEntry{\@rawtitle}{\@rawauthors}{\articlename}}
1440   \fi
1441   \pagestyle{rmaa} % this now seems necessary (06 Jun 2000)
1442   \thispagestyle{rmaafirstpage}
1443   %% \twocolumn[\@makeminititle]
1444   \renewcommand{\abstract}[1]{%
1445     \renewcommand\ADS@abstract{##1}%
1446     \renewcommand{\@abstract}{##1}\@writeabstract%
1447   }
1448   \renewcommand{\title}[2][ ]{%
1449     \gdef\ADS@authors{ }%
1450     \gdef\ADS@affil{ }%
1451     \gdef\ADS@references{ }%
1452     \gdef\ADS@keywords{ }%
```

```

1453 \renewcommand{\@rmaaArg}{##1}
1454 \ifx\@rmaaArg\@rmaaEmpty
1455 \renewcommand{\@TOCaftertitle}{}
1456 \else
1457 \renewcommand{\@TOCaftertitle}{ (\@rmaaArg) }
1458 \fi
1459 \renewcommand{\@title}{\rmaa@TOCTitleStyle{##2}}%
1460 \renewcommand{\@TOCtitle}{\rmaa@TOCTitleStyle{##2}\@TOCaftertitle}%
1461 \renewcommand{\rmaaIndexTitle}{\rmaa@IndexTitleStyle{##2}\@TOCaftertitle.}%
1462 \renewcommand\ADS@title{##2}%
1463 \xdef\ADS@firstpage{\@arabic{\c@page}}%
1464 }
1465 \renewcommand{\author}[1]{\let\@thanks\@empty\renewcommand\@author{##1} }
1466 \renewcommand{\footnotetext}[2][XX]{\par\noindent\textsuperscript{##1}~##2}
1467 \renewcommand{\footnoterule}{\kern-3\p@ \hrule \@width 3em \kern 2.6\p@}
1468 \if@book\@begofarticlehook\fi
1469 \if@book\begin{multicols}{2}[\@makeminititle]\else\@makeminititle\fi
1470 \begin{group}
1471 \setcounter{footnote}{0}
1472 }% and at the end of the environment....
1473 {\endgroup\if@book\end{multicols}\listofabstracts\label{RMAALastPage}\clearpage\fi}
1474 %% auxiliary commands used:
1475 %% \@writeabstract does all the actual formatting
1476 \newcommand{\@writeabstract}{%
1477 \if@book%
1478 \addcontentsline{loa}{abstract}{\protect\@fiddleauthors{\@TOCtitle}{\rmaaTOCauthors}}%
1479 \fi%
1480 \begin{center}\@title\par\@author\end{center}
1481 \@abstract
1482 \par\noindent\footnoterule\nobreak\footnotesize\@thanks
1483 \par\noindent\hrulefill\goodbreak
1484 \vskip 1cm \@plus0.5cm
1485 %% write ADS entry
1486 \if@book\if@abstractsads\ADS@dumpdata\fi\fi%
1487 \endgroup % this pair is to make each abstract a self-contained group
1488 \begin{group}
1489 \setcounter{footnote}{0}
1490 }
1491 }
1492 \if@book
1493 %% List of abstracts (stuff written to .loa file)
1494 \newcommand{\listofabstracts}{%
1495 \begin{multicols}{2}[%
1496 \vskip 1.5cm \vfill % leave at least 1.5 cm and go to bottom of page if possible
1497 \centerline{\MakeUpperCase{List of Abstracts}}
1498 \vskip 1.5cm \@plus0.5cm
1499 ][6cm] % this makes it start a new page if there is not at least 6cm of space
1500 \renewcommand{\@fiddleauthors}[2]{##1\hskip1em plus2em minus0.4em\penalty-100 ##2}
1501 \parindent\z@
1502 %% \parskip.5\p@ \@plus .7\p@\relax
1503 \parskip3\p@ \@plus 1\p@ \@minus 1\p@\relax % allow quite a lot of
1504 % leeway here to avoid breaks inside
1505 % entries
1506 \renewcommand{\@}{\relax} % temporarily turn off explicit line breaks just in case
1507 \renewcommand{\altaffilmark}[1]{\relax} % ditto with this
1508 \@starttoc{loa}
1509 \end{multicols}

```

```

1510 }
1511 \newcommand*{\l@abstract}[2]{%
1512   \par\penalty-1000
1513   #1\hskip 1em\penalty0\null\nobreak\hfill#2}
1514 \fi
1515

```

2.20 Code for typesetting an entire volume of conference proceedings

```

1516
1517 \if@book
1518 %% environment for including the individual articles
1519 \newcommand{\@fiddleauthors}[2]{\relax}
1520 \renewcommand{\theequation}{\@arabic\c@equation}
1521 \newenvironment{articles}%
1522 { \begingroup % make it a group so that author definitions do not
1523   % spill over
1524   \gdef\ADS@authors{}
1525   \pagestyle{rmaa}
1526   \renewenvironment{document}{%
1527     \@begofarticlehook
1528     \addtocounter{chapter}{1}%
1529     \addcontentsline{toc}{chapter}{%
1530       \protect\@fiddleauthors{\@TOCtitle}{\rmaaTOCauthors}}%
1531     \addtocontents{htc}{\protect\HyperTOCEntry{\@rawtitle}{\@rawauthors}{\articlename}}
1532     }{\relax}
1533   \renewcommand{\documentclass}[2][foo]{\relax}
1534   \renewcommand{\usepackage}[2][foo]{%
1535     \def\@packagename{##2}\def\@rmaacitename{rmaacite}%
1536     \ifx\@packagename\@rmaacitename
1537       \@rmcitetrue\ClassInfo{rmaa}{This paper uses rmaacite}
1538       \makeatletter\input{rmaacite.sty}\makeatother % read it in here so that all changes
1539       \else % are local to paper
1540       \if@debug\ClassWarning{rmaa}{Package \@packagename\space was requested by \articlename\space}
1541       \fi
1542       %% Don't allow individual articles to mess with the pages, volume or year
1543       \renewcommand{\SetFirstPage}[1]{\relax}
1544       \renewcommand{\SetYear}[1]{\relax}
1545       \renewcommand{\SetVolume}[1]{\relax}
1546       \renewcommand{\SetConfTitle}[1]{\relax}
1547       %% Don't allow individual articles to change these
1548       \renewcommand{\nonstopmode}{\relax}
1549       \renewcommand{\scrollmode}{\relax}
1550       \renewcommand{\outputplates}{\relax}
1551       %% XXXX need to check if using rmaacite and act accordingly
1552       %% avoid multiple declarations of the same length
1553       \let\oldnewlength=\newlength
1554       \renewcommand{\newlength}[1]{%
1555         \edef\reserved@a{\expandafter\@gobble\string ##1}%
1556         \@ifundefined{\reserved@a}{%
1557           \oldnewlength{##1}}{%
1558           \if@debug\ClassInfo{rmaa}{\reserved@a\space already defined: doing nothing}}\fi%
1559         \relax}%
1560       \renewcommand\newcommand{\providecommand}
1561     }%

```

```

1562 {\endgroup\onecolumn}
1563
1564

```

Command to be used in 'articles' environment for including an article

```

1565 \newcommand{\article}[2][]{%
1566   % optional first argument is extra text to put in brackets after title in TOC
1567   % e.g. ``Invited Talk'' or ``Poster''
1568   \renewcommand{\articlename}{#2}
1569   % reset loads of counters
1570   \setcounter{footnote}{0}
1571   \setcounter{figure}{0}
1572   \setcounter{table}{0}
1573   \setcounter{section}{0}
1574   \setcounter{equation}{0}
1575   \setcounter{rmaabib}{0}
1576   \setcounter{author}{0}
1577   \setcounter{AUTHOR}{1}
1578   \gdef\ADS@authors{%
1579     \gdef\ADS@affil{%
1580       \gdef\ADS@affiliations{%
1581         \gdef\ADS@references{%
1582           \@firstauthortrue
1583           \@firststaffiltrue
1584           \@firstaltaffiltrue
1585           \@firstkwtrue
1586           \rmcitetfalse
1587           \if@suppressfulladdresses\else\@needaddressestrue\fi
1588           \renewcommand{\@rmaaArg}{#1}
1589           \ifx\@rmaaArg\@rmaaEmpty
1590             \renewcommand{\@TOCaftertitle}{}
1591           \else
1592             \renewcommand{\@TOCaftertitle}{ (#1)}
1593           \fi

```

In the main journal articles must start on an odd page.

```

1594 \if@journal\clearpage\thispagestyle{empty}\cleardoublepage\fi
1595 %% Now input the file, then run the end-of-article hook (reinstated 28
1596 %% Sep 2001)
1597 {\input{\@articledir/\articlename.tex}\@endofarticlehook}

```

Command to separate articles into sessions. Write an entry in the TOC, makes sure we start on an odd page (added 06 Jun 2000), then do a title page if \SessionTitlePages was called.

```

1598 \newcommand{\session}[1]{
1599   %% this does nothing except write an entry in the TOC
1600   \addcontentsline{toc}{part}{\rmaa@TOCPartStyle{#1}}
1601   \addtocontents{htc}{\protect\HyperTOCpart{#1}}
1602   %% and also makes sure we start on an odd page (added 06 Jun 2000)
1603   \clearpage\thispagestyle{empty}\cleardoublepage
1604   \stepcounter{part}
1605   \if@sessiontitlepages{%
1606     \onecolumn
1607     \thispagestyle{empty}
1608     \renewcommand{\articlename}{Section\thepart TitlePage}
1609     \label{RMAAFirstPage}
1610     \make@session@title{#1}
1611     \label{RMAALastPage}

```

```

1612 \clearpage\thispagestyle{empty}\cleardoublepage
1613 }\fi
1614 }
1615 \newcommand{\make@session@title}[1]{%
1616 {%
1617 \setlength\parindent{0pt}
1618 \vspace*{\stretch{1}}
1619 \rule{\linewidth}{1mm}
1620 \begin{flushright}\Huge\bfseries\boldmath
1621 #1
1622 \end{flushright}
1623 \rule{\linewidth}{1mm}
1624 \vspace*{\stretch{2}}
1625 }
1626 }

```

Command to turn on separate title pages for each session.

```

1627 \newcommand{\SessionTitlePages}{\@sessiontitlepagestrue}
1628 \newcommand{\BoldSessionTitles}{%
1629 \renewcommand{\rmaa@TOCPartStyle}[1]{\textbf{\rmaa@TOCTitleStyle{##1}}}
1630 }
1631 \newcommand{\ArticleDir}[1]{\renewcommand{\@articledir}{#1}\graphicspath{{1/}}}
1632 \newcommand{\@articledir}{.}
1633 %\newcommand{\ps@rmaafront}{\ps@rmaa}% page style for front matter (same as ever, actually)
1634 \newcommand{\ps@rmaafront}{% page style for front matter: page # in each foot
1635 \renewcommand{\@oddfoot}{\hfil\thepage}}%
1636 \renewcommand{\@evenfoot}{\thepage\hfil}%
1637 % shorttitle in both heads
1638 \renewcommand{\@evenhead}{\hfil\@shorttitle\hfil}%
1639 \renewcommand{\@oddhead}{\@evenhead}
1640 }
1641 \newcommand{\ps@rmaafrontfirstpage}{% page style for first page of front matter
1642 % page # in each foot, on outside edge
1643 \renewcommand{\@oddfoot}{\hfil\thepage}%
1644 \renewcommand{\@evenfoot}{\thepage\hfil}%
1645 % nothing in the even heads
1646 \renewcommand{\@evenhead}{\relax}%
1647 \renewcommand{\@oddhead}{\relax}%
1648 }
1649 %% slight modification to the standard \frontmatter and \mainmatter
1650 %% commands, just to set the \pagestyle
1651 \renewcommand\frontmatter{%
1652 \latexonecolumn
1653 \cleardoublepage
1654 \@frontmattertrue
1655 \@mainmatterfalse
1656 \pagenumbering{roman}
1657 \pagestyle{rmaafront}
1658 \addtocounter{page}{2} % leave space for the title page
1659 }
1660 \renewcommand\mainmatter{%
1661 \pagestyle{empty}
1662 \if@rmtwocol\twocolumn\fi
1663 \cleardoublepage
1664 \@frontmatterfalse
1665 \@mainmattertrue
1666 \pagenumbering{arabic}
1667 \pagestyle{rmaa}

```

```

1668 }
1669 \renewcommand\backmatter{%
1670 \clearpage\pagestyle{empty}\cleardoublepage
1671 \@mainmatterfalse
1672 %% put extra space in the TOC
1673 \addtocontents{toc}{\bigskip}
1674 }

```

2.21 Front sections

The environment `frontsection` is for doing a section in the front matter (preface, list of participants, or whatever). It has one optional argument:

`frontsection` #1 Short title (no embedded spaces) for use in making PS files. E.g., “list_of_participants”.

and two mandatory arguments:

#2 Title of section (e.g., ‘Preface’)

#3 Commands to be evaluated before processing the contents of the environment. This is mainly useful for putting in the things that would go in the preamble of a normal article (e.g., `\listofauthors`, `\indexauthor`, `\notitle`)

```

1675 \newcommand{\notitle}{\@titlevisiblefalse} \newcommand{\shortname}{}
1676 \newenvironment{frontsection}[3][\%
1677 \begin{group}
1678 \renewcommand{\shortname}{#1}
1679 \ifx\shortname\@rmaasEmpty
1680 \renewcommand{\articlename}{#2}
1681 \else
1682 \renewcommand{\articlename}{\shortname}
1683 \fi
1684 \@begofarticlehook
1685 \@titlevisibletrue % default
1686 \thispagestyle{rmaafrontfirstpage}
1687 \listofauthors{} % blank out this in case it is not specified
1688 \title{#2}\shorttitle{#2}\shortauthor{#2}
1689 #3 % evaluate the command given as second mandatory arg
1690 \addcontentsline{toc}{chapter}{\protect\@fiddleauthors{\@TOCtitle}{\rmaaTOCauthors}}%
1691 \addtocontents{htc}{\protect\HyperTOCEntry{\@rawtitle}{\@rawauthors}{\articlename}}
1692 \if@titlevisible
1693 \vspace*{1cm}\centerline{\rmaa@FrontSecStyle{\@title}}\vspace*{1cm}
1694 \fi
1695 \setlength{\parskip}{3ex}
1696 }\frontlabel{RMAALastPage}\clearpage\endgroup}

1697 %% Definition of the command \frontlabel, which rights out something like 'F4' to
1698 %% the .aux file, instead of '\textlatin{i}'. This is so it is easy to post-process
1699 %% the file for making PS files of individual sections
1700 \newcommand{\frontlabel}[1][\%
1701 \@bsphack
1702 \protected@write\@auxout{}%
1703 {\string\newlabel{\articlename:#1}{F\@arabic{\c@page}}}%
1704 \@esphack
1705 }
1706 %% User command to say X, Y, Z, \ Editors of the Proceedings

```

```

1707 \newcommand{\EditorSignature}{\vspace*{\parskip}\rightline{\@editors}%
1708 \rightline{Editors of the proceedings}}
1709 %% Fiddle with \thesection, etc. so that they don't include the chapter number
1710 %% Basically go back to the 'article' definitions of these
1711 \renewcommand{\thesection}{\@arabic\c@section}
1712 \renewcommand{\thefigure}{\@arabic\c@figure}
1713 \renewcommand{\thetable}{\@arabic\c@table}
1714
1715 \newcommand{\@oldargs}{}
1716 \newcommand{\@newargs}{}
1717 %% add TOC entry for each paper
1718 \renewcommand{\title}[1]{%
1719 {\renewcommand{\@title}{\rmma@TitleStyle{#1}}}%
1720 \addtocounter{chapter}{1}\addcontentsline{toc}{chapter}{#1}%
1721 }%
1722
1723 %% Formatting of the table of contents
1724 %% dimensions of various parts
1725 \newlength{\TOCtextwidth}\setlength{\TOCtextwidth}{12.65cm}
1726 \newlength{\TOCpagemumwidth}\setlength{\TOCpagemumwidth}{1.3cm}
1727 \newlength{\TOCentrywidth}\setlength{\TOCentrywidth}{\TOCtextwidth}
1728 \addtolength{\TOCentrywidth}{-\TOCpagemumwidth}
1729 \newlength{\TOCextramargin}\setlength{\TOCextramargin}{1.25cm}
1730 \newcommand{\TOCbox}[1]{\hspace{\TOCextramargin}\parbox{\TOCtextwidth}{#1}\par}
1731 \newlength{\TOCextramarginx}\setlength{\TOCextramarginx}{\TOCextramargin}\addtolength{\TOCextramarginx}{\TOCextramargin}
1732 \newlength{\TOCtextwidthx}\setlength{\TOCtextwidthx}{\TOCtextwidth}\addtolength{\TOCtextwidthx}{\TOCextramarginx}
1733 \newcommand{\TOCboxx}[1]{\hspace{\TOCextramarginx}\parbox{\TOCtextwidthx}{#1}\par}
1734
1735 \newcommand{\RMAAbannerimage}{rmsc}
1736 \renewcommand\tableofcontents{%
1737 \renewcommand{\articlename}{CONTENTS}
1738 \begingroup
1739 \begofarticlehook
1740 \if@twocolumn
1741 \restonecoltrue\onecolumn
1742 \else
1743 \restonecolfalse
1744 \fi
1745 %% 9pt for journal style
1746 \if@proceedings\else\small\fi
1747 \if@newstyle\small\fi %% same for new style
1748 \if@proceedings\thispagestyle{rmaafrontfirstpage}\else\thispagestyle{empty}\fi
1749 \shortauthor{Contents}\shorttitle{Contents}
1750 \vspace*{18mm}
1751 \if@printbanner
1752 %% put in the banner header (need to get better image of this)
1753 \TOCbox{\hspace*{-0.15cm}\includegraphics[width=0.9\TOCtextwidth]{\RMAAbannerimage}}
1754 \vspace*{8mm}
1755 %% volume and publication date (should really be in funny font)
1756 \TOCboxx{\@volumen\[\[2mm] \@mes\ \@anyo}
1757 \else
1758 %% put in the banner header (need to get better image of this)
1759 \TOCbox{\hspace*{-0.15cm}\includegraphics[width=0.9\TOCtextwidth]{\RMAAbannerimage}}
1760 \vspace*{12.5mm}
1761 %% volume and publication date (should really be in funny font)
1762 \TOCboxx{~\[\[2mm] ~}
1763 \fi

```

```

1764 \vspace*{16mm}
1765 %% This is the command that fiddles with the TOC entry so that the
1766 %% title is flushleft but the authors are flushright
1767 \renewcommand{\@fiddleauthors}[2]{%
1768   % first put the paper title
1769   \renewcommand{\@}{\relax} % temporarily turn off explicit line breaks just in case
1770   \renewcommand{\altaffilmark}[1]{\relax} % ditto with this
1771   \renewcommand{\textsuperscript}[1]{\relax} % ditto with this
1772   ##1
1773   % now save the author list in a box
1774   \sbox\@tempboxa{##2}%
1775   % check that box is shorter than the total width available for the entry
1776   \ifdim \wd\@tempboxa <\TOCentrywidth
1777     % if so, then put it right here, flush against right margin
1778     \penalty10000\hskip1em plus10em\penalty0\hbox{\nobreak\hfill\box\@tempboxa
1779     % Note that we force a space of at least 1em between title and authorlist,
1780     % stretchable to 11em since we may have very short titles but still with an
1781     % authorlist too long to go on the same line. The only linebreak allowed is
1782     % directly before the authorlist.
1783   \else
1784     % if it is too long, we set the original authorlist text in its own parbox
1785     \par\vskip1ex\parbox[b]{\TOCentrywidth}{\raggedleft ##2}
1786   \fi
1787 }
1788 \@starttoc{toc}%
1789 \if@restonecol\twocolumn\fi
1790 \frontlabel{RMAALastPage}
1791 \clearpage
1792 \thispagestyle{empty}
1793 \cleardoublepage % make sure we start on an odd page
1794 \endgroup
1795
1796 %%% ALSO, do the HTML TOC
1797 %% The file that will be used to make the HTML TOC
1798 \@starttoc{htc}
1799 %% All the stuff in this file does nothing in the book style
1800 \addtocontents{htc}{\protect\HyperTOCmeeting{\@conftitle}{\@reunionplace}{\@reuniondate}}
1801 \addtocontents{htc}{\protect\HyperTOCeditors{\@editors}}
1802 \addtocontents{htc}{\protect\HyperTOCpreamble}
1803 \addtocontents{htc}{\protect\HyperTOCEntry{Table of Contents}{\@articlename}}
1804
1805 %% and the ADS file
1806 \ADS@openfile
1807 }
1808 %% This is now much simpler
1809 \renewcommand\l@chapter[2]{%TOC entry for articles
1810   \ifnum \c@tocdepth >\m@ne
1811     \vskip 1.0em \@plus\p@
1812     \TOCbox{%
1813       \parbox[b]{\TOCentrywidth}{#1}\parbox[b]{\TOCpagenumwidth}{\hfill#2}
1814     }
1815   \fi}
1816 \renewcommand\l@part[2]{%TOC entry for sessions: centered, no page number
1817   \ifnum \c@tocdepth >\m@ne
1818     \vskip 1.5em \@plus1.5em \goodbreak
1819     \TOCbox{%
1820       \parbox[b]{\TOCentrywidth}{\hfil#1\hfil}\hfill

```



```

1821     }
1822   \fi\nobreak}
1823
1824%% Formatting theindex
1825%% strongly encourage page breaks between index entries
1826\renewcommand{@idxtitem}{\par\penalty-1000\hangindent.45cm}
1827\renewcommand{\indexspace}{\par\penalty-1000\vskip 10\p@ \@plus15\p@ \@minus3\p@\relax}
1828\renewenvironment{theindex}{%
1829  %% first, make sure we start on an odd page (06 Jun 2000)
1830  \clearpage\thispagestyle{empty}\cleardoublepage
1831  %% this looks a bit like an article but is two columns and without abstract, etc
1832  \renewcommand{\articlename}{INDEX}
1833  \title{Author Index}\shortauthor{Author Index}\shorttitle{Author Index}
1834  \listofauthors{}
1835  \addcontentsline{toc}{chapter}{\protect\@fiddleauthors{\@TOCtitle}{\rmaaTOCauthors}}%
1836  \addtocontents{htc}{\protect\HyperTOCEntry{\@rawtitle}{\@rawauthors}{\articlename}}
1837  \pagestyle{rmaa}
1838  \thispagestyle{rmaafirstpage}
1839  \@begofarticlehook
1840  %% 9pt for journal style
1841  \if@proceedings\else\small\fi
1842  \if@newstyle\small\fi
1843  \twocolumn[\@makeminititle]
1844  %% vertical spacing (see also definition of \@idxtitem and \indexspace
1845  \parskip\z@ \@plus .6\p@\relax % allow quite a lot of leeway here to avoid breaks inside ent
1846  %% horizontal spacing, breaking and glue parameters (see also the stuff in the definition
1847  %% of \indexauthor
1848  \parindent\z@
1849  \exhyphenpenalty10000 % don't break on explicit hyphens, it always looks bad
1850  \rightskip=0pt plus.2em % allow a tiny bit of leeway at the ends of lines
1851  \spaceskip.3333em plus.5em minus.15em % a lot of leeway between words
1852  \xspaceskip.5em plus.5em minus.4em % this seems to have no effect
1853  \let\item\@idxtitem
1854  \renewcommand{\@}{\relax} % temporarily turn off explicit line breaks just in case
1855  \renewcommand{\altaffilmark}[1]{\relax} % ditto with this
1856  \renewcommand{\textsuperscript}[1]{\relax} % ditto with this
1857  }{\label{RMAALastPage}\clearpage} % clearpage necessary so that we know about \shortauthor
1858
1859
1860
1861%% end definitions for book styles
1862\fi
1863

```

In order to do away with plates, we sometimes want a figure to appear in color only in the online version. The following command can be used in a figure caption to typeset a note to this effect.

```

1864\newcommand\ColorOnlineOnly{%
1865  \textsc{Note: this figure is available in color in the electronic
1866    version of this article, obtainable from}
1867  \texttt{http://discretionary{}{}{}www.\discretionary{}{}{}astroscu.\discretionary{}{}{}unam
1868%% Plates
1869%% Define 2 counters: plate is the number in the whole document, plateloop is used
1870%% internally by \outputplates
1871\newcounter{plate}
1872\newcounter{plateloop}
1873%% Currently limited to 15 plates in document

```

```

1874%% when we do a label, we need to write to \newlabel entries to the .aux file, one
1875%% that says RMAAPlateX so that it can be referred to in \outputplates, and one that
1876%% says articlename:RMAAPlateX so that the dvips program can find it and associate it
1877%% with the right article
1878 \newcommand{\@platelabeli}{\oldlabel{RMAAPlate1}\label{RMAAPlate1}}
1879 \newcommand{\@platelabelii}{\oldlabel{RMAAPlate2}\label{RMAAPlate2}}
1880 \newcommand{\@platelabeliii}{\oldlabel{RMAAPlate3}\label{RMAAPlate3}}
1881 \newcommand{\@platelabeliv}{\oldlabel{RMAAPlate4}\label{RMAAPlate4}}
1882 \newcommand{\@platelabelv}{\oldlabel{RMAAPlate5}\label{RMAAPlate5}}
1883 \newcommand{\@platelabelvi}{\oldlabel{RMAAPlate6}\label{RMAAPlate6}}
1884 \newcommand{\@platelabelvii}{\oldlabel{RMAAPlate7}\label{RMAAPlate7}}
1885 \newcommand{\@platelabelviii}{\oldlabel{RMAAPlate8}\label{RMAAPlate8}}
1886 \newcommand{\@platelabelix}{\oldlabel{RMAAPlate9}\label{RMAAPlate9}}
1887 \newcommand{\@platelabelx}{\oldlabel{RMAAPlate10}\label{RMAAPlate10}}
1888 \newcommand{\@platelabelxi}{\oldlabel{RMAAPlate11}\label{RMAAPlate11}}
1889 \newcommand{\@platelabelxii}{\oldlabel{RMAAPlate12}\label{RMAAPlate12}}
1890 \newcommand{\@platelabelxiii}{\oldlabel{RMAAPlate13}\label{RMAAPlate13}}
1891 \newcommand{\@platelabelxiv}{\oldlabel{RMAAPlate14}\label{RMAAPlate14}}
1892 \newcommand{\@platelabelxv}{\oldlabel{RMAAPlate15}\label{RMAAPlate15}}
1893 \newcommand{\@outputplatelabeli}{\oldlabel{RMAAOutputPlate1}}
1894 \newcommand{\@outputplatelabelii}{\oldlabel{RMAAOutputPlate2}}
1895 \newcommand{\@outputplatelabeliii}{\oldlabel{RMAAOutputPlate3}}
1896 \newcommand{\@outputplatelabeliv}{\oldlabel{RMAAOutputPlate4}}
1897 \newcommand{\@outputplatelabelv}{\oldlabel{RMAAOutputPlate5}}
1898 \newcommand{\@outputplatelabelvi}{\oldlabel{RMAAOutputPlate6}}
1899 \newcommand{\@outputplatelabelvii}{\oldlabel{RMAAOutputPlate7}}
1900 \newcommand{\@outputplatelabelviii}{\oldlabel{RMAAOutputPlate8}}
1901 \newcommand{\@outputplatelabelix}{\oldlabel{RMAAOutputPlate9}}
1902 \newcommand{\@outputplatelabelx}{\oldlabel{RMAAOutputPlate10}}
1903 \newcommand{\@outputplatelabelxi}{\oldlabel{RMAAOutputPlate11}}
1904 \newcommand{\@outputplatelabelxii}{\oldlabel{RMAAOutputPlate12}}
1905 \newcommand{\@outputplatelabelxiii}{\oldlabel{RMAAOutputPlate13}}
1906 \newcommand{\@outputplatelabelxiv}{\oldlabel{RMAAOutputPlate14}}
1907 \newcommand{\@outputplatelabelxv}{\oldlabel{RMAAOutputPlate15}}
1908 \newcommand{\@platerefii}{\oldpageref{RMAAPlate1}}
1909 \newcommand{\@platerefi}{\oldpageref{RMAAPlate2}}
1910 \newcommand{\@platerefi}{\oldpageref{RMAAPlate3}}
1911 \newcommand{\@platerefi}{\oldpageref{RMAAPlate4}}
1912 \newcommand{\@platerefi}{\oldpageref{RMAAPlate5}}
1913 \newcommand{\@platerefi}{\oldpageref{RMAAPlate6}}
1914 \newcommand{\@platerefi}{\oldpageref{RMAAPlate7}}
1915 \newcommand{\@platerefi}{\oldpageref{RMAAPlate8}}
1916 \newcommand{\@platerefi}{\oldpageref{RMAAPlate9}}
1917 \newcommand{\@platerefi}{\oldpageref{RMAAPlate10}}
1918 \newcommand{\@platerefi}{\oldpageref{RMAAPlate11}}
1919 \newcommand{\@platerefi}{\oldpageref{RMAAPlate12}}
1920 \newcommand{\@platerefi}{\oldpageref{RMAAPlate13}}
1921 \newcommand{\@platerefi}{\oldpageref{RMAAPlate14}}
1922 \newcommand{\@platerefi}{\oldpageref{RMAAPlate15}}
1923 \newcounter{figplatei}
1924 \newcounter{figplateii}
1925 \newcounter{figplateiii}
1926 \newcounter{figplateiv}
1927 \newcounter{figplatev}
1928 \newcounter{figplatevi}
1929 \newcounter{figplatevii}
1930 \newcounter{figplateviii}

```

```

1931 \newcounter{figplateix}
1932 \newcounter{figplatex}
1933 \newcounter{figplatexi}
1934 \newcounter{figplatexii}
1935 \newcounter{figplatexiii}
1936 \newcounter{figplatexiv}
1937 \newcounter{figplatexv}
1938 %% Printed output should use the counter 'plate'
1939 \renewcommand{\theplate}{\@arabic\c@plate}
1940 \renewcommand{\theplateloop}{\@arabic\c@plateloop}
1941 %% Command to output all the saved plates in this paper
1942 \newcommand{\outputplates}{%
1943   \setcounter{plateloop}{0}
1944   \if@book\else\@endofarticlehook\fi % not entirely sure why, but this
1945                                     % seems to be needed
1946   \clearpage % first output the last page of text
1947   % now set pagestyle for blank even pages and make sure we start on an odd page
1948   \pagestyle{empty}
1949   \cleardoublepage
1950   \onecolumn
1951   \parindent\z@
1952   % first put in an extra sheet
1953   % the main purpose of this is so there is always a blank even page before
1954   % each plate for filling in the PS file if the article has an odd number
1955   % of pages (see splitbook.sh)
1956   \null\vfil\centerline{PLATES}\vfil\clearpage\pagestyle{rmaaplate}\cleardoublepage
1957   % output each plate in turn
1958   \@whilenum\value{plateloop}<\value{plate}\do{%
1959     \addtocounter{plateloop}{1}
1960     % restore the figure counter from \@figcounti, \@figcountii, etc
1961     \setcounter{figure}{\value{figplate}\roman{plateloop}}
1962     % spew out the plate (in its own group for safety)
1963     {\csname @plate\roman{plateloop}\endcsname\par}
1964   }
1965   \pagestyle{rmaa}
1966   % reset the page number as if nothing had happened
1967   \addtocounter{page}{-\value{plate}}
1968   \addtocounter{page}{-\value{plate}}
1969 }
1970 \newcommand\figcaption{%
1971   \def\@capttype{figure}
1972   \renewcommand{\@makecaption}{\@makefigcap}
1973   \caption}
1974 \newcommand\tabcaption{%
1975   \def\@capttype{table}
1976   \renewcommand{\@makecaption}{\@maketabcap}
1977   \caption}
1978
1979 \newcommand{\plate}[2][1]{%
1980   %% User command to make a plate page:
1981   %% Mandatory argument is what goes on the plate - this should not
1982   %% include any floating environments (e.g. figure). Instead, \figcaption
1983   %% should be used to do the captions.
1984   %% Optional argument is the number of figures (i.e. captions) on the plate
1985   %% page (default is 1). This is necessary for incrementing the figure counter.
1986   %%
1987   %% Note that we have to use a \gdef rather than an \xdef when we

```

```

1988 %% save the plate output in a command. This means that in the book styles when it
1989 %% comes to spewing out the plate, we will have forgotten about any user macros
1990 %% that may have been defined. This can be got round by repeating the macros inside the plat
1991 %% (Presumably, one would use a \newcommand rather than \renewcommand if they were new.)
1992 % increment global and local counters
1993 \addtocounter{plate}{1}
1994 % write appropriate label to .aux file
1995 \csname @platelabel\roman{plate}\endcsname
1996 % define a global macro called \@platei, \@plateii, \@plateiii, \@plateiv, ...
1997 \expandafter\gdef\csname @plate\roman{plate}\endcsname{%
1998   \csname @outputplatelabel\roman{plateloop}\endcsname
1999   \null\vfil #2 \vfil
2000   \cleardoublepage
2001 }
2002 % save the current shortauthor and shorttitle
2003 % need to be \xdef to take current values of \@shortauthor, etc
2004 \expandafter\xdef\csname @shorta\roman{plate}\endcsname{\@shortauthor}
2005 \expandafter\xdef\csname @shortt\roman{plate}\endcsname{\@shorttitle}
2006 % save the current value of the figure counter for later use in \outputplates
2007 \setcounter{figplate\roman{plate}}{\value{figure}}
2008 % increment the figure counter according to the optional argument
2009 \addtocounter{figure}{#1}
2010 }
2011 %% page style for plate pages
2012 \newcommand{\ps@rmaaplate}{%
2013   % Plate X (see page Y) in the foot
2014   \renewcommand\@oddfoot{\hfil\csname @shorta\roman{plateloop}\endcsname\
2015     (see page~\csname @plateref\roman{plateloop}\endcsname)\hfil}%
2016   \renewcommand\@evenfoot{\relax}%
2017   % nothing in even heads (blank pages)
2018   \renewcommand\@evenhead{\relax}
2019   % short title and page num in the odd heads
2020   \renewcommand\@oddhead{\hfil\csname @shortt\roman{plateloop}\endcsname%
2021     \hfil\llap{PLATE~\theplateloop}}
2022 }
2023
2024
2025
2026
2027
2028 %% Things for the User Guide
2029 \if@guide
2030 %% stolen from doc.sty
2031 \def\MakeShortVerb#1{%
2032   \expandafter\ifx\csname cc\string#1\endcsname\relax
2033     \@shortvrbinfo{Made }{#1}%
2034     \add@special{#1}%
2035     \expandafter
2036     \xdef\csname cc\string#1\endcsname{\the\catcode`#1}%
2037     \begingroup
2038     \catcode`\~\active \lccode`\~`#1%
2039     \lowercase{%
2040       \global\expandafter\let
2041       \csname ac\string#1\endcsname~%
2042       \gdef~{\verb~}}%
2043     \endgroup
2044     \global\catcode`#1\active

```

```

2045 \else
2046 \@shortvrbinf@empty{#1 already}%
2047 \fi}
2048 \def\DeleteShortVerb#1{%
2049 \expandafter\ifx\csname cc\string#1\endcsname\relax
2050 \else
2051 \@shortvrbinf@{Deleted }{#1 as}%
2052 \rem@special{#1}%
2053 \global\catcode'#1\csname cc\string#1\endcsname
2054 \global \expandafter\let \csname cc\string#1\endcsname \relax
2055 \ifnum\catcode'#1=\active
2056 \beginingroup
2057 \catcode'\~\active \lccode'\~'#1%
2058 \lowercase{%
2059 \global\expandafter\let\expandafter~%
2060 \csname ac\string#1\endcsname}%
2061 \endgroup \fi \fi}
2062 \def\@shortvrbinf@#1#2{%
2063 \PackageInfo{doc}{%
2064 #1\expandafter\@gobble\string#2 a short reference
2065 for \string\verb}}
2066 \def\add@special#1{%
2067 \rem@special{#1}%
2068 \expandafter\gdef\expandafter\dospecials\expandafter
2069 {\dospecials \do #1}%
2070 \expandafter\gdef\expandafter\@sanitize\expandafter
2071 {\@sanitize \@makeother #1}}
2072 \def\rem@special#1{%
2073 \def\do##1{%
2074 \ifnum'#1=##1 \else \noexpand\do\noexpand##1\fi}%
2075 \xdef\dospecials{\dospecials}%
2076 \beginingroup
2077 \def\@makeother##1{%
2078 \ifnum'#1=##1 \else \noexpand\@makeother\noexpand##1\fi}%
2079 \xdef\@sanitize{\@sanitize}%
2080 \endgroup}
2081 %% define | as shortcut for \verbatim
2082 \MakeShortVerb{|}
2083 %% comand to specify arguments to LaTeX commands
2084 \newcommand{\rmArg}[1]{%
2085 \ensuremath{\langle}\scriptsize \textsf{\MakeUpperCase{#1}}\ensuremath{\rangle}}
2086 %\newcommand{\rmArg}[1]{\ensuremath{\langle}\textsc{#1}\ensuremath{\rangle}}
2087 \providecommand{\BibTeX}{\rmfamily B\kern-.05em%
2088 \textsc{i}\kern-.025em b\kern-.08em%
2089 T\kern-.1667em\lower.7ex\hbox{E}\kern-.125emX}}
2090 %% Environment for code examples
2091 \newenvironment{Code}{%
2092 \begin{list}{}{\setlength{\leftmargin}{0.05\columnwidth}}
2093 \item[]\end{list}}
2094 \fi
2095 \end{package}

```

3 User commands for astronomical articles

Some random definitions. These go both into the main class file and also into `adshtml.sty`.

Definitions of the journal name in different incarnations.

```
2096 \newcommand{\RMAA}{RMxAA}
2097 \newcommand{\RMAAlong}{Revista Mexicana de Astronom\'}{\i}a y Astrof\'}{\i}sica}
2098 \newcommand{\RMAASC}{RMxAC}
2099 \newcommand{\RMAASCLong}{\RMAA\ (Serie de Conferencias)}
```

`\ibidrule` This puts a horizontal rule with a period after it. It is used when the author list of a reference is identical to the preceding one.

```
2101 \newcommand{\ibidrule}{\rule[-0.03cm]{4.7em}{.01cm}.\ }
```

`\ThisVolume` References to other articles in the same volume can be coded as, e.g., `\bibitem{} Bloggs, J. \This`

```
2102 \newcommand{\ThisVolume}[1]{%
2103   \@year, \if@proceedings\RMAASC\else\RMAA\fi, \@volume,
2104   \if@book\oldpageref{#1:RMAAFirstPage}\else 000\fi\ (this volume)}
```

Other stuff that may be useful in ref lists.

```
2105 \newcommand{\etal}{et al.\@}
```

Various new commands from AAS macros

```
2106 \def\acknowledgments{\vskip 3ex plus .8ex minus .4ex}
2107 \let\acknowledgements=\acknowledgments % second spelling
2108 \let\jnl@style=\rm
2109 \def\ref@jnl#1{{\jnl@style#1}}
2110 \DeclareRobustCommand\aj{\ref@jnl{AJ}}
2111 \DeclareRobustCommand\araa{\ref@jnl{ARA\&A}}
2112 \DeclareRobustCommand\apj{\ref@jnl{ApJ}}
2113 \DeclareRobustCommand\apjl{\ref@jnl{ApJ}}
2114 \DeclareRobustCommand\apjs{\ref@jnl{ApJS}}
2115 \DeclareRobustCommand\ao{\ref@jnl{Appl.~Opt.}}
2116 \DeclareRobustCommand\apss{\ref@jnl{Ap\&SS}}
2117 \DeclareRobustCommand\ap{\ref@jnl{A\&A}}
2118 \DeclareRobustCommand\aprr{\ref@jnl{A\&A~Rev.}}
2119 \DeclareRobustCommand\aprs{\ref@jnl{A\&AS}}
2120 \DeclareRobustCommand\azh{\ref@jnl{AZh}}
2121 \DeclareRobustCommand\baas{\ref@jnl{BAAS}}
2122 \DeclareRobustCommand\jrasc{\ref@jnl{JRASC}}
2123 \DeclareRobustCommand\memras{\ref@jnl{MmRAS}}
2124 \DeclareRobustCommand\mnras{\ref@jnl{MNRAS}}
2125 \DeclareRobustCommand\pra{\ref@jnl{Phys.~Rev.~A}}
2126 \DeclareRobustCommand\prb{\ref@jnl{Phys.~Rev.~B}}
2127 \DeclareRobustCommand\prc{\ref@jnl{Phys.~Rev.~C}}
2128 \DeclareRobustCommand\prd{\ref@jnl{Phys.~Rev.~D}}
2129 \DeclareRobustCommand\pre{\ref@jnl{Phys.~Rev.~E}}
2130 \DeclareRobustCommand\prl{\ref@jnl{Phys.~Rev.~Lett.}}
2131 \DeclareRobustCommand\pasp{\ref@jnl{PASP}}
2132 \DeclareRobustCommand\pasj{\ref@jnl{PASJ}}
2133 \DeclareRobustCommand\qjras{\ref@jnl{QJRAS}}
2134 \DeclareRobustCommand\skytel{\ref@jnl{S\&T}}
2135 \DeclareRobustCommand\solphys{\ref@jnl{Sol.~Phys.}}
2136 \DeclareRobustCommand\sovast{\ref@jnl{Soviet~Ast.}}
```

```

2137 \DeclareRobustCommand\ssr{\ref@jnl{Space~Sci.~Rev.}}
2138 \DeclareRobustCommand\zap{\ref@jnl{ZAp}}
2139 \DeclareRobustCommand\nat{\ref@jnl{Nature}}
2140 \DeclareRobustCommand\iaucirc{\ref@jnl{IAU~Circ.}}
2141 \DeclareRobustCommand\aplett{\ref@jnl{Astrophys.~Lett.}}
2142 \DeclareRobustCommand\apspr{\ref@jnl{Astrophys.~Space~Phys.~Res.}}
2143 \DeclareRobustCommand\bain{\ref@jnl{Bull.~Astron.~Inst.~Netherlands}}
2144 \DeclareRobustCommand\fcpl{\ref@jnl{Fund.~Cosmic~Phys.}}
2145 \DeclareRobustCommand\gca{\ref@jnl{Geochim.~Cosmochim.~Acta}}
2146 \DeclareRobustCommand\grl{\ref@jnl{Geophys.~Res.~Lett.}}
2147 \DeclareRobustCommand\jcp{\ref@jnl{J.~Chem.~Phys.}}
2148 \DeclareRobustCommand\jgr{\ref@jnl{J.~Geophys.~Res.}}
2149 \DeclareRobustCommand\jqsrt{\ref@jnl{J.~Quant.~Spec.~Radiat.~Transf.}}
2150 \DeclareRobustCommand\memsai{\ref@jnl{Mem.~Soc.~Astron.~Italiana}}
2151 \DeclareRobustCommand\nphysa{\ref@jnl{Nucl.~Phys.~A}}
2152 \DeclareRobustCommand\physrep{\ref@jnl{Phys.~Rep.}}
2153 \DeclareRobustCommand\physscr{\ref@jnl{Phys.~Scr}}
2154 \DeclareRobustCommand\planss{\ref@jnl{Planet.~Space~Sci.}}
2155 \DeclareRobustCommand\procspie{\ref@jnl{Proc.~SPIE}}
2156 \let\astap=\aap
2157 \let\apjlett=\apjl
2158 \let\apjsupp=\apjs
2159 \let\applopt=\ao
2160 \def\phn{\phantom{0}}
2161 \def\phd{\phantom{.}}
2162 \def\phs{\phantom{\ensuremath{-}}}
2163 \def\phm#1{\phantom{#1}}

```

All these are redone as robust and using more modern commands where possible. The robustness is so they will not get expanded if used in abstracts and titles when these are passed to the ADS file.

```

2164 %%\def\sun{\hbox{$\odot$}}
2165 \DeclareRobustCommand\sun{\ensuremath{\odot}}
2166 %%\def\earth{\hbox{$\oplus$}}
2167 \DeclareRobustCommand\earth{\ensuremath{\oplus}}
2168 %%\def\lesssim{\mathrel{\hbox{\rlap{\hbox{\lower4pt\hbox{$\sim$}}}\hbox{$<$}}}}
2169 %%\def\gttrsim{\mathrel{\hbox{\rlap{\hbox{\lower4pt\hbox{$\sim$}}}\hbox{$>$}}}}
2170 \DeclareRobustCommand\lesssim{\mathrel{\hbox{\smaller\smaller\rlap{\hbox{\lower3pt\hbox{$\sim$}}}}}
2171 \DeclareRobustCommand\gttrsim{\mathrel{\hbox{\smaller\smaller\rlap{\hbox{\lower3pt\hbox{$\sim$}}}}}
2172 %%\def\lta{\mathrel{\spose{\lower 3pt\hbox{$\mathchar"218$}}}}
2173 %%\def\raise 2.0pt\hbox{$\mathchar"13C$}}
2174 %%\def\gta{\mathrel{\spose{\lower 3pt\hbox{$\mathchar"218$}}}}
2175 %%\def\raise 2.0pt\hbox{$\mathchar"13E$}}
2176 \DeclareRobustCommand\sq{\hbox{\rlap{$\sqcap$}$\sqcup$}}
2177 %%\def\arcdeg{\hbox{$^\circ$}}
2178 %%\def\arcmin{\hbox{$^\prime$}}
2179 %%\def\arcsec{\hbox{$^\prime\prime$}}
2180 \DeclareRobustCommand\arcdeg{\ensuremath{^\circ}}
2181 \DeclareRobustCommand\arcmin{\ensuremath{^\prime}}
2182 \DeclareRobustCommand\arcsec{\ensuremath{^\prime\prime}}
2183 %%\def\fd{\hbox{$.\!|\!|^\circ$}}
2184 %%\def\fh{\hbox{$.\!|\!|^\circ$}}
2185 %%\def\fm{\hbox{$.\!|\!|^\circ$}}
2186 %%\def\fs{\hbox{$.\!|\!|^\circ$}}
2187 %%\def\fdg{\hbox{$.\!|\!|^\circ$}}
2188 %%\def\farcm{\hbox{$.\!|\!|^\circ$}}
2189 %%\def\farcs{\hbox{$.\!|\!|^\circ$}}

```

```

2190 %%\def\fp{\hbox{$.!\!\!^{\scriptscriptstyle\rm p}$}}
2191 \DeclareRobustCommand\fd{\ensuremath{.!\!\!^{\mathrm{d}}}}
2192 \DeclareRobustCommand\fh{\ensuremath{.!\!\!^{\mathrm{h}}}}
2193 \DeclareRobustCommand\fm{\ensuremath{.!\!\!^{\mathrm{m}}}}
2194 \DeclareRobustCommand\fs{\ensuremath{\mkern0.5mu.\mkern-5mu^{\mathrm{s}}\mkern-1mu}}
2195 \DeclareRobustCommand\fdg{\ensuremath{.!\!\!^{\circ}}}
2196 \DeclareRobustCommand\farcm{\ensuremath{.!\!\!^{\mkern-4mu^{\prime}}}}
2197 \DeclareRobustCommand\farcs{\ensuremath{\mkern1mu.\mkern-6mu^{\prime\prime}\mkern-1.5mu}}
2198 %%\DeclareRobustCommand\farcs{\ensuremath{.!\!\!^{\prime\prime}}}}
2199 \DeclareRobustCommand\fp{\ensuremath{.!\!\!^{\scriptscriptstyle\rm p}}}}
2200 %%\def\micron{\hbox{$_\mu$}}
2201 \DeclareRobustCommand\micron{\ensuremath{\mu\mathrm{m}}}}
2202 \let\la=\lessssim
2203 \let\ga=\gtssim
2204 %%\def\case#1#2{\hbox{$_\frac{\scriptstyle\#1}{\scriptstyle\#2}$}}
2205 %%\def\slantfrac#1#2{\hbox{$_\scriptstyle\#1/\scriptstyle\#2$}}
2206 %%\def\onehalf{\slantfrac{1}{2}}
2207 %%\def\onethird{\slantfrac{1}{3}}
2208 %%\def\twothirds{\slantfrac{2}{3}}
2209 %%\def\onequarter{\slantfrac{1}{4}}
2210 %%\def\threequarters{\slantfrac{3}{4}}
2211 \DeclareRobustCommand\case[2]{\ensuremath{\frac{\scriptstyle\#1}{\scriptstyle\#2}}}
2212 \DeclareRobustCommand\slantfrac[2]{\ensuremath{\scriptstyle\#1/\scriptstyle\#2}}
2213 \DeclareRobustCommand\onehalf{\slantfrac{1}{2}}
2214 \DeclareRobustCommand\onethird{\slantfrac{1}{3}}
2215 \DeclareRobustCommand\twothirds{\slantfrac{2}{3}}
2216 \DeclareRobustCommand\onequarter{\slantfrac{1}{4}}
2217 \DeclareRobustCommand\threequarters{\slantfrac{3}{4}}
2218 %%\def\ubvr{\hbox{$U\!BV\!R$}}
2219 %%\def\ub{\hbox{$U\!-\!B$}}
2220 %%\def\bv{\hbox{$B\!-\!V$}}
2221 %%\def\vr{\hbox{$V\!-\!R$}}
2222 %%\def\ur{\hbox{$U\!-\!R$}}

```

New commands for “photometric” colors

```

2223 \DeclareRobustCommand\ubvr{\ensuremath{U\!BV\!R}}
2224 \DeclareRobustCommand\Color[2]{%
2225   \ensuremath{%
2226     \ifx#1V\!-\!fi-!\#2
2227   }}
2228 \DeclareRobustCommand\ub{\Color{U}{B}}
2229 \DeclareRobustCommand\bv{\Color{B}{V}}
2230 \DeclareRobustCommand\vr{\Color{V}{R}}
2231 \DeclareRobustCommand\ur{\Color{U}{R}}
2232 %% New version of the \ion command, that actually works!

```

\ion This version of the \ion command allows you to write either \ion{N}{4} or \ion{N}{iv} in order to get N IV.

```

2233 \DeclareRobustCommand\ion[2]{%
2234   \mbox{\scriptsize\kern0.2em%
2235     \smaller\rmfamily%
2236     \edef\@tempa{\@car#2\@nil}%
2237     \ifcat1\@tempa%
2238       \@Roman{\scriptstyle\#2}%
2239     \else%
2240       \uppercase{\scriptstyle\#2}%
2241     \fi}}

```



```

2242 \newcounter{IonStage}
2243 \DeclareRobustCommand\plainion[2]{\setcounter{IonStage}{#2}\Roman{IonStage}}
2244 %%\def\ion#1#2{\ensuremath{\mathrm{#1}}\;}{\protect\small\rm\@Roman{#2}}}

2245 \DeclareRobustCommand\nodata{$\cdots$}

```

These are needed by the `\ion` command. Isn't there an easier way of doing this?

```

2246 \let\@small=\small
2247 \let\@normalsize=\normalsize
2248 \let\@footnotesize=\footnotesize
2249 \let\@scriptsize=\scriptsize
2250 \let\@tiny=\tiny
2251 \let\@large=\large
2252 \let\@Large=\Large
2253 \let\@LARGE=\LARGE
2254 \let\@huge=\huge
2255 \let\@Huge=\Huge
2256 \newcommand{\smaller}{\small}
2257 \renewcommand{\normalsize}{\renewcommand{\smaller}{\small}\@normalsize}
2258 \renewcommand{\small}{\renewcommand{\smaller}{\footnotesize}\@small}
2259 \renewcommand{\footnotesize}{\renewcommand{\smaller}{\scriptsize}\@footnotesize}
2260 \renewcommand{\scriptsize}{\renewcommand{\smaller}{\tiny}\@scriptsize}
2261 \renewcommand{\tiny}{\renewcommand{\smaller}{\tiny}\@tiny}
2262 \renewcommand{\large}{\renewcommand{\smaller}{\normalsize}\@large}
2263 \renewcommand{\Large}{\renewcommand{\smaller}{\large}\@Large}
2264 \renewcommand{\LARGE}{\renewcommand{\smaller}{\Large}\@LARGE}
2265 \renewcommand{\huge}{\renewcommand{\smaller}{\LARGE}\@huge}
2266 \renewcommand{\Huge}{\renewcommand{\smaller}{\huge}\@Huge}
2267 \</package>| adshtml-style

```

4 Other files

4.1 The driver and make files

These are put here for completeness, although they still need to be distributed separately since otherwise the user won't be able to unpack this file into its constituent parts.

The Makefile has two principal rules: `docs`, and `macros`. The `docs` rule produces a PDF and gzipped PS file of the documentation. I still haven't perfected the combination of rules required to get it to run \LaTeX enough times in all circumstances. The `macros` rule runs \LaTeX on `rmaa.ins` in order to unpack `rmaa.cls` and all the other little files (including the Makefile and the `rmaa.ins` files themselves...

First set up lists of various types of file.

```

2268 <*makefile>
2269 DOCFILES=rmaa.pdf
2270 MACRO_LTX_FILES=rmaa.cls rmaacite.sty adshtml.sty
2271 SHELLSCRIPTS=makeads.sh
2272 MACRO_OTHER_FILES=adshtml.perl sample.latex2html-init
2273 MAKEFILE=Makefile
2274 MACROFILES=$(MACRO_LTX_FILES) $(SHELLSCRIPTS) $(MACRO_OTHER_FILES)
2275 SKELETONFILES=ADS.tex

```

Install the files read only into the package directory, specified via a path relative to the source directory.

```
2276 INSTALL=install
2277 INSTALL_DIR=../packages
```

The default rule is to make everything. Installation must be explicitly asked for.

```
2278 all: docs macros
2279
2280 install: install-docs install-macros
2281
```

Most files are installed read-only to prevent editing. Skeleton files must be writeable. Must be careful not to overwrite the Makefile in the parent directory.

```
2282 install-macros: macros
2283     $(INSTALL) -m 444 $(MACRO_LTX_FILES) $(MACRO_OTHER_FILES) $(INSTALL_DIR)
2284     $(INSTALL) -m 555 $(SHELLSCRIPTS) $(INSTALL_DIR)
2285     $(INSTALL) -m 644 $(SKELETONFILES) $(INSTALL_DIR)
2286
2287 install-docs: docs
2288     $(INSTALL) rmaa.pdf $(INSTALL_DIR)/rm-fulldocs.pdf
2289
```

Make the PDF and gzipped PS files.

```
2290 docs: $(DOCFILES)
2291
```

Make everything else if either the .dtx or .ins files have changed.

```
2292 macros: rmaa.dtx rmaa.ins
```

Ensure that all the macro files can be written to then recreate them. The touch is there in case any of the files don't exist yet.

```
2293     touch $(MACROFILES) $(MAKEFILE)
2294     chmod u+w $(MACROFILES) $(MAKEFILE) rmaa.ins
2295     latex "\input{rmaa.ins}"
```

TeX automatically adds the .tex extension to extensionless files. We fix this and take the opportunity to convert back to TABs all that it has lovingly converted to spaces.

```
2296     cp -f $(MAKEFILE) $(MAKEFILE).BCK && unexpand $(MAKEFILE).tex >| $(MAKEFILE) && rm $(MAKEFILE).BCK
```

Make the shell scripts executable and everything unwriteable (so they don't get hand-edited by mistake). However, undo this for the files that the user is *supposed* to modify.

```
2297     chmod a+x $(SHELLSCRIPTS)
2298     chmod a-w $(MACROFILES) $(MAKEFILE)
2299     chmod u+w $(SKELETONFILES)
2300
```

We now use PDF_{La}TeX for this.

```
2301 rmaa.idx: rmaa.dtx
2302     @echo "REGENERATING .idx FILE"
2303     pdflatex "\nonstopmode\input{rmaa.dtx}"
2304
2305 rmaa.aux: rmaa.dtx rmaa.ind rmaa.gls
2306     @echo "REGENERATING .aux FILE"
2307     pdflatex "\nonstopmode\input{rmaa.dtx}"
```

```

2308
2309 rmaa.ind: rmaa.idx
2310         @echo "REGENERATING INDEX"
2311         makeindex -s gind.ist rmaa
2312
2313 rmaa.gls: rmaa.glo
2314         @echo "REGENERATING CHANGELOG"
2315         makeindex -s gglo.ist -o rmaa.gls rmaa.glo
2316
2317 rmaa.pdf: rmaa.aux rmaa.ind rmaa.gls
2318         @echo "REGENERATING .pdf FILE"
2319         pdflatex "\nonstopmode\input{rmaa.dtx}"
2320
2321 clean:
2322         rm -f rmaa.aux rmaa.dvi rmaa.ind rmaa.gls
2323 </makefile>

```

The `rmaa.ins` file uses the `docstrip` package to split out all the files and strip off this documentation.

```

2324 <*ins>
2325 %%
2326 %% Installation batch file for the RMAA LaTeX package
2327 %%
2328 \def\batchfile{rmaa.ins}
2329 \input docstrip.tex
2330 \preamble
2331
2332 PLEASE DO NOT EDIT THIS FILE! It is generated automatically from
2333 the file rmaa.dtx using the accompanying Makefile and rmaa.ins
2334 Any hand-edited changes will be lost
2335
2336 A LaTeX document class for the RMxAA
2337
2338 Author: William Henney (w.henney@irya.unam.mx)
2339
2340 Latest version available from: http://www.iryia.unam.mx/rmaa
2341
2342 Copyright (C) 1999-2019 Instituto de Astronomia, UNAM, Mexico
2343
2344 Permission is hereby granted, free of charge, to any person obtaining
2345 a copy of this software and associated documentation files (the
2346 "Software"), to deal in the Software without restriction, including
2347 without limitation the rights to use, copy, modify, merge, publish,
2348 distribute, sublicense, and/or sell copies of the Software, and to
2349 permit persons to whom the Software is furnished to do so, subject to
2350 the following conditions:
2351
2352 The above copyright notice and this permission notice shall be
2353 included in all copies or substantial portions of the Software.
2354
2355 THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,
2356 EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF
2357 MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND
2358 NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE
2359 LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION
2360 OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION
2361 WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

```

```
2362 \endpreamble
```

Clobber files without asking

```
2363 \askforoverwritefalse
```

Make the L^AT_EX macro files (class and styles)

```
2364 \generate{%
```

```
2365   \file{rmaa.cls}{\from{rmaa.dtx}{package}}
```

```
2366   \file{rmaa.ins}{\from{rmaa.dtx}{ins}}
```

```
2367   \file{rmaacite.sty}{\from{rmaa.dtx}{rmaacite}}
```

```
2368   \file{adshtml.sty}{\from{rmaa.dtx}{adshtml-style}}
```

```
2369   \file{ADS.tex}{\from{rmaa.dtx}{ads-container}}
```

```
2370 }
```

Make the other non-L^AT_EX files. These are done separately since they can't use '%' as a comment character for the preamble/postamble (and Perl files can't have the postamble I don't think).

```
2371 \generate{\nopreamble\nopostamble%
```

```
2372   \file{Makefile}{\from{rmaa.dtx}{makefile}}
```

```
2373   \file{adshtml.perl}{\from{rmaa.dtx}{adshtml-perl}}
```

```
2374   \file{makeads.sh}{\from{rmaa.dtx}{ads-shell-script}}
```

```
2375   \file{sample.latex2html-init}{\from{rmaa.dtx}{latex2html-init}}
```

```
2376 }
```

```
2377
```

```
2378 %% Local Variables:
```

```
2379 %% mode: LaTeX
```

```
2380 %% mode: Font-lock
```

```
2381 %% End:
```

```
2382 \</ins>
```

4.2 Extended citation syntax

Modified from a file called mnrascite.sty I no longer remember where I stole the original version of this from

Alterations to the cite commands to make them do more sensible things. N.B. the bibliography style should produce entries which have labels where the date is delimited by angle brackets 'i>' for these macros to work properly. They will not give very sensible error messages if you do not do this properly.

A new command \scite{key} is defined which produces a citation which is suitable for insertion in a sentence. i.e., it does not put brackets around the whole citation, only the date. Also \pcite{key} produce output with no parentheses whatsoever.

Should redefine \@bibitem really to have any hope of compatibility the command \lbibcite is defined to deal with the citations.

```
2383 \*rmaacite)
```

```
2384 \def\bibitem[#1<#2>]#3{\par\hangindent=1.5em\hangafter=1
```

```
2385   \if@filesw
```

```
2386     {\def\protect##1{\string ##1\space}
```

```
2387     \immediate\write\@auxout{\string\lbibcite{#3}{#1}{#2}}}
```

```
2388   \fi}
```

```
2389 \@redefinebibitem % what it says
```

Note that the `\lbibcite` defines two types of citation one contains the names, the other the year

```
2390 \def\lbibcite#1#2#3{\global\@namedef{b@#1}{#2}
2391 \global\@namedef{by@#1}{#3}}
2392
2393 \def\@bcite#1#2{({#1\if@tempswa , #2\fi})}
2394 \def\@pcite#1#2{#1\if@tempswa , #2\fi}
```

This declaration contains what is put between the name and the date

```
2395 \def\@brcite{\ }
2396 \def\@ebrcite{}
2397 \def\@fmttop#1{\@fmtcite[\csname #1\endcsname]}
2398 \def\@citex[#1]#2{%
2399 %% \if@files\immediate\write\@auxout{\string\citation{#2}}\fi
2400 %% WJH added 16 Jan 2002
2401 \@for\@citeb:=#2\do{%
2402 \edef\@citeb{\expandafter\@firstofone\@citeb:\articlename}%
2403 \if@files\immediate\write\@auxout{\string\citation{\@citeb}}\fi}%
2404 %% to here
2405 \def\@citea{}%
2406 \@cite{\@for\@citeb:=#2\do
2407 {%
2408 \edef\@citeb{\expandafter\@firstofone\@citeb:\articlename}%
2409 \@citea\def\@citea{; } \@ifundefined
2410 {b@\@citeb}{\bf ?}\@warning {Citation '\@citeb' on page \thepage \space undefined}}%
2411 {\csname b@\@citeb\endcsname\@citebro\csname by@\@citeb\endcsname\@citebrc}}}%
2412 {#1}}
2413
2414 \def\cite{\@ifnextchar [{\let\@citebro=\space
2415 \let\@citebrc=\relax
2416 \let\@cite=\@bcite\@tempswatrue\@citex}
2417 {\let\@citebro=\space
2418 \let\@citebrc=\relax
2419 \let\@cite=\@bcite\@tempswafalse\@citex[]}]
2420 \def\pcite{\@ifnextchar [{\let\@citebro=\space
2421 \let\@citebrc=\relax
2422 \let\@cite=\@pcite\@tempswatrue\@citex}
2423 {\let\@citebro=\space
2424 \let\@citebrc=\relax
2425 \let\@cite=\@pcite\@tempswafalse\@citex[]}]
2426 \def\scite{\@ifnextchar [{\let\@citebro=\@brcite
2427 \let\@citebrc=\@ebrcite
2428 \let\@cite=\@pcite\@tempswatrue\@citex}
2429 {\let\@citebro=\@brcite
2430 \let\@citebrc=\@ebrcite
2431 \let\@cite=\@pcite\@tempswafalse\@citex[]}]
2432
2433 \renewenvironment{thebibliography}
2434 {\section*{REFERENCES}\vspace*{\afterbiblioskip}\small
2435 \if@book\RereadBiblio\fi
2436 \sloppy\clubpenalty4000\widowpenalty4000
2437 \sfcode\.\=1000\relax
2438 \setlength\parindent{\z@}\setlength\parskip{\z@}}
2439 {\relax\normalsize\@outputaddressesifnecessary}
2440 \rmaacite}
```

4.3 Auxilliary files for generating ADS data

The ADS data are written by \LaTeX to a `.ads` file. This file then has to be included in the following file (`ADS.tex`), which is run through \LaTeX2HTML (see below).

```
2441 \begin{ads-container}
2442 %%
2443 %% Instructions:
2444 %% Edit the \input{} line below to reflect the name of your file.
2445 \documentclass{article}
2446 \usepackage[latin1]{inputenc}
2447 \usepackage{adshtml}
2448 \newcommand{\ADSfield}[2]
2449 {\%#1 #2\\}
2450 %%\newcommand{\ADSvfield}[2]
2451 %%{\%#1 \begin{verbatim}#2\end{verbatim}}
2452 \newenvironment{ADSarticle}{}{\par\bigskip}
2453 \renewcommand{\bibitem}[2][\par}
2454 \setlength{\parindent}{0pt}
2455 \renewcommand{\ThisVolume}[1]{%
2456 2001, \RMAASC, 12, \oldpageref{#1:RMAAFirstPage}}
2457
2458
2459 \begin{document}
2460 \makeatletter
2461 \input{rmbooksamp.ads}
2462 \end{document}
2463 \end{ads-container}
```

This is the `adshtml.sty` style file used by `ADS.tex`. It just defines a few macros that might be used in abstracts, etc (really it should define them all). This now gets all its code from Sec 3.

```
2464 \begin{adshtml-style}
2465 %% Nothing else needs to go here now.
2466 \end{adshtml-style}
```

The init file for `latex2html`.

```
2467 \begin{latex2html-init}
2468 $PDFTOCAIRO = "pdftocairo";
2469 $PDFLATEX = "pdflatex";
2470 $LATEX = "latex";
2471 $MAX_SPLIT_DEPTH = 0;
2472 $HTML_VERSION = "4.0,math";
2473 $NO_SIMPLE_MATH = 1;
2474 $ADDRESS = "<p><address><a href=\"mailto:rmaa@astro.unam.mx\">rmaa@astro.unam.mx</address></p>";
2475 $INFO = "<p>This document was created using latex2html and the rmaa latex macros</p>";
2476 $NO_NAVIGATION = 1;
2477 1;
2478 \end{latex2html-init}
```

This is the `adshtml.perl` file that is used by \LaTeX2HTML . Some bizarre \TeX command sometimes show up so we tell it to ignore these. All the astronomy macros that come from AAS are processed in \TeX . That way they get made to images but with an ALT tag that has the original code, which is what will be picked up by `lynx`, with the result that they get passed intact into the final `.txt` file.

```

2479 {*adshtml-perl}
2480 package main;
2481
2482 $dum = &do_cmd_makeatletter();
2483
2484 sub do_cmd_RMAA {
2485     local($_) = @_;
2486     "RMxAA" . $_;
2487 }
2488
2489 sub do_cmd_RMAASC {
2490     local($_) = @_;
2491     "RMxAASC" . $_;
2492 }
2493
2494 sub do_cmd_et al {
2495     local($_) = @_;
2496     "et al\." . $_;
2497 }
2498
2499 sub do_cmd_ibidrule {
2500     local($_) = @_;
2501     "<img src=\"foo\" alt=\"\ibidrule\">" . $_;
2502 }
2503
2504
2505 sub do_cmd_bibitem {
2506     local($_) = @_;
2507     local($key);
2508     local($opt, $dummy)=&get_next_optional_argument;
2509     $key = &missing_braces unless
2510         ((s/$next_pair_pr_rx/$key = $2; ''/eo)
2511         ||(s/$next_pair_rx/$key = $2; ''/eo));
2512     "<p>" . $_;
2513 }
2514
2515 &ignore_commands (<<_RAW_ARG_CMDS_);
2516 lowercase
2517 adjustfinalcols
2518 textsuperscript # {}
2519 newline # []
2520 thinmuskip
2521 mskip
2522 smallskip
2523 medskip
2524 bigskip
2525 hspace # {}
2526 hspacestar # {}
2527 vspace # {}
2528 vspacestar # {}
2529 mathrm
2530 _at_mathrm
2531 spacefactor
2532 discretionary
2533 unhbox
2534 voidb_at_x
2535 penalty

```

```

2536 _at_M
2537 _at_m
2538 null
2539 IeC
2540 _RAW_ARG_CMDS_
2541
2542 &process_commands_in_tex (<<_RAW_ARG_CMDS_);
2543 sun
2544 earth
2545 lesssim
2546 gtrsim
2547 sq
2548 argdeg
2549 arcmin
2550 arcsec
2551 fd
2552 fh
2553 fm
2554 fs
2555 fdg
2556 farcm
2557 farcs
2558 fp
2559 micron
2560 la
2561 ga
2562 case # {} # {}
2563 slantfrac # {} # {}
2564 onehalf
2565 onethird
2566 twothirds
2567 onequarter
2568 threequarters
2569 ubvr
2570 ub
2571 bv
2572 vr
2573 ur
2574 aj
2575 araa
2576 apj
2577 apjl
2578 apjs
2579 ao
2580 apss
2581 aap
2582 aapr
2583 aaps
2584 azh
2585 baas
2586 jrasc
2587 memras
2588 mnras
2589 pra
2590 prb
2591 prc
2592 prd

```



```

2593 pre
2594 prl
2595 pasp
2596 pasj
2597 qjras
2598 skytel
2599 solphys
2600 sovast
2601 ssr
2602 zap
2603 nat
2604 iaucirc
2605 aplett
2606 apspr
2607 bain
2608 fcp
2609 gca
2610 grl
2611 jcp
2612 jgr
2613 jqsr
2614 memsai
2615 nphysa
2616 physrep
2617 physscr
2618 planss
2619 procspie
2620 _RAW_ARG_CMDS_
2621
2622 1;                                     # This must be the last line
2623 </adshtml-perl>

This is a shell script makeads.sh that generates the _ads.txt file from
_ads.tex by using LATEX2HTML and lynx.

2624 <*ads-shell-script>
2625 #! /bin/sh
2626 if [ -z $1 ]; then
2627     echo "Usage: $0 basename"
2628     exit
2629 fi
2630 BASENAME=$1
2631 ADSBASENAME=${BASENAME}_ads
2632 AUXFILE=$BASENAME.aux
2633 TMPFILE=tmp.$$
2634
2635
2636 echo "Generating $ADSBASENAME.tex"
2637
2638 # For some reason, must double-up \\ to \\\ but not \ to \\ - odd!
2639 cat > $ADSBASENAME.tex <<EOF
2640 %% PLEASE DO NOT EDIT THIS FILE! It is generated automatically from
2641 %% the script makeads.sh. Any hand-edited changes will be lost
2642 %%
2643 \documentclass{article}
2644 \usepackage[latin1]{inputenc}
2645 \usepackage{html}
2646 \usepackage{adshtml}

```

```

2647 \newcommand{\ADSfield}[2]{\%#1 #2\\}
2648 \newenvironment{ADSarticle}{}{\par\bigskip}
2649 \setlength{\parindent}{0pt}
2650 \newcounter{istage}
2651 \renewcommand{\ion}[2]{\setcounter{istage}{#2}#1 \Roman{istage}}
2652 \begin{document}
2653 \makeatletter
2654 EOF
2655 echo >> $ADSBASENAME.tex "\input{$BASENAME.ads2}"
2656 echo >> $ADSBASENAME.tex "\end{document}"
2657
2658
2659
2660 echo "Generating $ADSBASENAME.sed"
2661
2662 # Find type of journal
2663 grep '\documentclass\[.*proceedings.*\]' $BASENAME.tex >/dev/null \
2664     && JOURNAL='RMxAC' \
2665     || JOURNAL='RMxAA'
2666
2667 # Find the year and volume number
2668 YEAR='grep '\SetYear' $BASENAME.tex | sed 's/.*\SetYear{(.*)}.*$/1/' \
2669 VOLUME='grep '\SetVolume' $BASENAME.tex | sed 's/.*\SetVolume{(.*)}.*$/1/' \
2670
2671 # Generate an auxilliary sed script
2672 cat > $TMPFILE <<EOF
2673 s|\\\\\\newlabel{(.*) :RMAAFirstPage}{(.*){(.*)}}|s|\\\\\\\\\\ThisVolume{\\1}/$YEAR, RMxAC, $VOL
2674 EOF
2675
2676 # Now go through the .aux file, looking for \newlabels and use the sed
2677 # script just generated in order to make another sed script, one that
2678 # will replace \ThisVolume{LABEL} with the correct reference
2679 grep '^\\newlabel{.*:RMAAFirstPage}' $AUXFILE \
2680     | sed -f $TMPFILE > $ADSBASENAME.sed && rm $TMPFILE
2681
2682 # Append a further sed command to get rid of \@, since redefining
2683 # it in _ads.tex didn't work
2684 echo >> $ADSBASENAME.sed 's/\\\\\\@//g'
2685
2686 echo "Generating $BASENAME.ads2 from $ADSBASENAME.sed and $BASENAME.ads"
2687
2688 # Apply this to the .ads file, generating the .ads2 file, which is included
2689 # by the _ads.tex file.
2690 sed -f $ADSBASENAME.sed $BASENAME.ads > $BASENAME.ads2
2691
2692 echo "Generating $ADSBASENAME.txt from $ADSBASENAME.tex and $BASENAME.ads2"
2693
2694 # Now run latex2html on the _ads.tex file
2695 latex2html -no_navigation -info 0 -address 0 -html_version 4.0,math $ADSBASENAME
2696
2697 # Then, convert to utf8 with lynx and tidy it up a bit
2698 lynx --justify=off --width=100 --dump --nolist --display_charset=utf-8 \
2699     $ADSBASENAME/$ADSBASENAME.html | cut -c4- \
2700     | sed 's/ibidrule/\\ibidrule/g' > $ADSBASENAME.txt
2701 (/ads-shell-script)

```

5 Epilogue

Err, that's it ...

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Change History

0.0	missing Fig/Tab/Refs 2
General: So bored today, decided to rewrite RMAA LaTeX macros from scratch 2	0.2 General: All basic functionality present, I think 2
0.1	0.3 General: Better mechanism for
General: Just about working - still	

	alternative affiliations Added 'guide' option for user guide . . . 2	can output the full addresses by hand with the <code>\outputfulladdresses</code> command. Editors' Guide updated but still not finished. Revamped <code>splitbook.sh</code> now produces PS file of each article for web page and also an EPS file of each page for sending to the printers. 2
0.4	General: Minor stylistic changes . . . 2	
0.5	General: Added <code>\fulladdresses</code> and <code>\adjustfinalcols</code> (just about working) 2	
0.6	General: Tweaked <code>\adjustfinalcols</code> (still not perfect) Added proceedings option Added <code>onecolumn/twocolumn</code> options (orthogonal to journal/proceedings) 2	1.8 General: Fixed bug in last page label with <code>\suppressfulladdresses</code> . . 2
0.7	General: Increased spacing between sections in single column styles. Suppressed floats at bottom of pages (didn't work though) 2	1.9 General: Corrected position of page number in footer of articles that open on even pages. Ensured that first article in each session opens on an odd page, as do list of abstracts and author index. Added extra space in TOC before the backmatter. Added command for editors, <code>\BoldSessionTitles</code> , that makes produces bold titles for session in the TOC. 2
1.0	General: Now does a whole book - lots of stuff tidied up 2	
1.1	General: Added manuscript option, corrected bugs 2	
1.2	General: Added <code>\plate</code> command 2	2.0 General: Added 'newstyle' option, which should be used in all new proceedings volumes (wider abstract, smaller typeface in fig captions, etc.) Added commands for formatting table captions. New demonstration document <code>rmpostsamp.tex</code> for 1-page posters. This will be the last release under a PRI government (for a while...) 2
1.3	General: Corrected <code>\figcaption</code> to do the caption formatting right Corrected font size of sec headings in front matter 2	
1.4	General: Added copyright and license info (GPL) 2	
1.5	General: Eliminated superscripts from titles in TOC and index . . . 2	2.1 General: Fixed some inconsistencies in <code>\nocite</code> and <code>\bibitem</code> unification Fixed the definition of <code>\ion</code> so it will work in math mode and in contexts where the typesize is different from normal (e.g., title, fig captions). Modified the definition of <code>\@caption</code> , so we don't write any list-of-figures
1.6	General: More cleaning up: full stops after titles in index, running headers and footers in frontmatter, fontsize in title of index, etc 2	
1.7	General: Fixed more little things. Page labels now work, even if you have no bibliography. You	

data (we never use it anyway, and it just causes problems with fragile commands in fig captions).	2	dropped from 3.07 after a synchronization disaster. Basically, the accentless optional argument to <code>\indexauthor</code> . Must add the macro directories to my unison set-up to stop this sort of thing from happening.	19
2.2beta General: Fixed bug whereby twocolumn option was not passed through to book class. Finally sorted out the “label on last page” issue.	2	3.09 General: Explicitly require a recent version of natbib, so that we get a decent error message if the package is too old.	4
2.2beta10 General: Fixed <code>\secnumdepth</code> for <code>\book style</code>	33	3.10 General: Set large values for <code>\hbadness</code> , <code>\vbadness</code> , <code>\hfuzz</code> , <code>\vfuzz</code> . To reduce amount of stuff that gets written to the terminal every time you compile something. . .	11
2.2beta11 General: Just about finished all the ADS stuff now. Except for the references, which I have given up on for the time being.	22	3.11 General: Moved the <code>\articlename</code> to after the key for consistency with the new natbib stuff.	61
Made twocol and newstyle the default for proceedings.	3	3.12 General: Added option to have title page for each session. Turn it on with <code>\SessionTitlePages</code> . . .	44
2.2beta12 <code>\@keywordheader</code> : <code>\addkeyword</code> New user interface for keywords.	15	3.14 General: Option to turn off natbib . .	3
2.2beta13 <code>\@keywordheader</code> : <code>\addkeyword</code> Improved behaviour with .ads file. Use <code>\ADS@sanitize</code> to change definitions of ‘ and \ion. . . .	15	rmaabib: Reinstalled old definition of <code>\bibitem</code> for the case where the nonatbib option is requested, so that the rmaacite package will work. This means that you can’t use rmaacite and natbib in the same volume.	39
3.05 General: Added natbib option	3	3.16 <code>\@kwtwidth</code> : Added extra vertical space between authors and accepted date.	30
If the natbib option is used, then set things up so that natbib’s version of the bibliography is identical to the standard one. . . .	4	General: Added <code>\Color</code> command for doing photometric colors. . .	55
thebibliography: Removed the <code>\beforebibliohskip</code> and <code>\afterbibliohskip</code> commands, since they cause unwanted vertical space in some instances.	38	3.17 appendices: Added appendices environment that does the right thing.	34
3.06 General: Natbib option turned on permanently	3		
3.07 General: Added proof option	3		
3.08 <code>\indexauthor</code> : Remerged changes from 3.06 that got			

3.18	General: trying out doctex mode . . . 3	3.25	General: Change \newcommand tp \def when setting \bibfont. This allows it to work with all versions of natbib. 4
3.19	General: Changes for Silvia - remove addresses from end, new abstract style 2		Updated copyright year. 4
3.21	General: Changes for Silvia - abstracts are now shipped out to ADS. 2		Updated email and web addresses to crya.unam.mx. . . 4
3.22	General: Allow proceedings articles to have received/accepted dates 2	3.26	\@kwtwidth: Add extra label to review articles 30
3.23	\@keywordheader: \addkeyword now signals a compilation error if the author tries to add more than 6 keywords. 15		General: New option for review articles 3
	\MSextramargin: Reduce baselinestretch in manuscript style to 1.2. No longer use raggedright for manuscript. . . . 10	4.0	\ADS@doi: Save DOI for ADS . . . 23
	General: Full addresses are now automatically suppressed for proceedings style. 3		\ADS@dumpdata: Write all author affiliations for ADS 26
	Manuscript is now 10 pt instead of 12pt 3		\DOI: New user command \DOI to typeset DOI in the header of first page and add it to ADS info. 20
	Manuscript is now on by default. 3		\ORCIDid: Add mechanism for giving ORCID iD links 20
	Now allow Bibtex to work properly 4		\abovesectionskip: Use negative values for skip so that first paragraph after section headings is not indented. This is something that I have been trying to fix for years It turns out that the anser was in the documentation for the standard command \@startsection. . . 8
3.24	\@keywordheader: kwdcounter is now reset in \@begofarticlehook to prevent error in book style . . . 15		\ps@rmaafirstpage: Change to three-line header with copyright info and DOI. 13
	\MSextramargin: Further reduction of baselinestretch in manuscript style to 1.1 since we now have wider margins. . . 10		General: Change abstract to appear before resumen. Change RevMexAA to RMxAA for consistency with ADS. 2
	Split manuscript's extra margin into separate horizontal and vertical parts. 10		Fix for issue where breaking hyperlink across pages gave an error. 6
	General: Added user access to the macro version and date via \rmVersion and \rmDate . . . 2		Fix labels for amsmath display equations, in case that package has been loaded. 39
	New option boldkeywords that does the keywords in the old ugly way. Now off by default. . . 3		Fix the at-sign substitution so that it only eliminates \@ and does not mess with email addresses. 65

Make <code>hyperref</code> and <code>etoolbox</code> into hard requirements, since we now use them extensively. . . .	5	hardly anything is in the top level. That way, things are clearer on github.	58
Make sure that <code>lynx</code> writes utf-8 output instead of latin-1.	65	appendix: Added appendix environment for case where there is only one section.	35
Reorganize folder layout so that			