

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

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2019/11/12

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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*This file has version 4.0 last revised 2019/11/12.

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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 \LaTeX `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.

```

145 \RequirePackage{etoolbox}
146 \RequirePackage{hyperref}
147 \hypersetup{hidelinks}

```

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.

```

148 \urlstyle{same}
149 \newcommand\email{\begingroup \urlstyle{rm}\Url}
150 \patchcmd\@combinedblfloats{\box\@outputbox}{\unvbox\@outputbox}{}{}%

```

```

151 \errmessage{\noexpand\@combinedblfloats could not be patched}%
152 }%

```

2.2 Other setup stuff

Some declarations:

```

153 \newif\if@needaddresses
154 \@needaddressestrue
155 \newif\if@frontmatter
156 \@frontmatterfalse
157 \newif\if@inpreamble
158 \@inpreambletrue
159 \newif\if@firstauthor
160 \@firstauthortrue
161 \newif\if@firstaffil
162 \@firstaffiltrue
163 \newif\if@firstaltaffil
164 \@firstaltaffiltrue
165 \newif\if@firstkwd
166 \@firstkwdtrue
167 \newif\if@noexpandADS
168 \@noexpandADSfalse
169 \newif\if@sessiontitlepages
170 \@sessiontitlepagesfalse

```

\@rmaaEmpty These are used in various commands to check if arg was left blank

```

\@rmaaArg 171 \newcommand{\@rmaaEmpty}{}
172 \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 173 \providecommand{\MakeUpperCase}[1]{\uppercase{#1}}
\textbackslash 174 \providecommand{\textsuperscript}[1]{\ensuremath{\textsuperscript{#1}}}
175 \providecommand{\textbackslash}{\ensuremath{\backslash}}

```

```

\protected@xdef LATEX internal commands:
\restore@protect 176 \providecommand{\protected@xdef}{%
177 \let\@@protect\protect
178 \let\protect\@unexpandable@protect
179 \afterassignment\restore@protect
180 \xdef}
181 \providecommand{\restore@protect}{\let\protect\@@protect}
182 \providecommand{\@unexpandable@protect}{\noexpand\protect\noexpand}
183 \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:

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

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

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

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

```
193 \setlength{\columnsep}{9.5mm}
194 \setlength{\headsep}{0.7cm}
195 \setlength{\footskip}{0.75cm}
196 \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 $\langle factor \rangle \times \langle FACTOR \rangle \times \langle defaultlength \rangle$.

```
197 \newcommand\set@scalable@length[4]{%
198   %% arg #1: NAME of length without leading '\\'
199   %%
200   %% arg #2: default VALUE
201   \expandafter\newlength\csname @#1@default\endcsname
202   \expandafter\setlength\csname @#1@default\endcsname{#2}%
203   \expandafter\newlength\csname @@#1@@default\endcsname
204   \expandafter\setlength\csname @@#1@@default\endcsname{#2}%
205   %% arg #3: default STRETCH
206   \expandafter\newlength\csname @#1@stretch\endcsname
207   \expandafter\setlength\csname @#1@stretch\endcsname{#3}%
208   \expandafter\newlength\csname @@#1@@stretch\endcsname
209   \expandafter\setlength\csname @@#1@@stretch\endcsname{#3}%
210   %% arg #4: default SHRINK
211   \expandafter\newlength\csname @#1@shrink\endcsname
212   \expandafter\setlength\csname @#1@shrink\endcsname{#4}%
213   \expandafter\newlength\csname @@#1@@shrink\endcsname
214   \expandafter\setlength\csname @@#1@@shrink\endcsname{#4}%
215   %%
216   %% User-defined scale \@NAME@scale is unity by default
217   \expandafter\gdef\csname @#1@scale\endcsname{1}%
218   %% Package-defined scale \@NAME@SCALE is unity by default
```

```

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

```

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

```

258 % \ifthenelse{\boolean{@manuscript}}{%
259 %   \set@scalable@length{parskip}{0.5\baselineskip}{0.3\p@}{0.1\p@}
260 % }{
261 %   \set@scalable@length{parskip}{0\p@}{0.3\p@}{0\p@}
262 % }

```

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

```

\belowsectionskip 263 \newlength{\abovesectionskip}
\aboveparaskip 264 \newlength{\belowsectionskip}
\belowparaskip 265 \newlength{\aboveparaskip}
266 \newlength{\belowparaskip}

```

The default values for these lengths are those traditionally used for the onecol-umn style.


```

267 \@set@scalable@length{abovesectionskip}{-3.5ex}{-4ex}{-2ex}
268 \@set@scalable@length{belowsectionskip}{2.3ex}{0ex}{2ex}
269 \@set@scalable@length{aboveparaskip}{3.25ex}{2ex}{0.5ex}
270 \@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.

```

271 \@set@scalable@length{floatsep}{12\p@}{4\p@}{4\p@}
272 \@set@scalable@length{textfloatsep}{20\p@}{4\p@}{8\p@}
273 \@set@scalable@length{intextsep}{12\p@}{4\p@}{4\p@}
274 \@set@scalable@length{dblfloatsep}{12\p@}{4\p@}{4\p@}
275 \@set@scalable@length{dbltextfloatsep}{20\p@}{4\p@}{8\p@}
276 \@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> 277 \newlength{\@before@title@skip} 278 \newlength{\@before@author@skip} 279 \newlength{\@between@author@skip} 280 \newlength{\@before@abstract@skip} 281 \newlength{\@after@abstracthead@skip} 282 \newlength{\@between@abstract@skip} 283 \newlength{\@before@kwd@skip} 284 \newlength{\@before@dates@skip} 285 \@set@scalable@length{@before@title@skip}{2em}{\z@}{\z@} 286 \@set@scalable@length{@before@author@skip}{1.5em}{\z@}{\z@} 287 \@set@scalable@length{@between@author@skip}{0.5em}{\z@}{\z@} 288 \@set@scalable@length{@before@abstract@skip}{3ex}{1ex}{0.5ex} 289 \@set@scalable@length{@after@abstracthead@skip}{1ex}{\z@}{\z@} 290 \@set@scalable@length{@between@abstract@skip}{2ex}{1ex}{0.5ex} 291 \@set@scalable@length{@before@kwd@skip}{1ex}{0.5ex}{0.2ex} 292 \@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>
--	---

```

293 \newcommand{\@package@default@lengths}{%
294   \ifthenelse{\boolean{@rmtwocol}}{%
295     %% twocolumn mode
296     \abovesectionskip@set@SCALE{0.5}
297     \belowsectionskip@set@SCALE{0.5}
298     \aboveparaskip@set@SCALE{0.5}
299     \belowparaskip@set@SCALE{1}
300     \floatsep@set@SCALE{0.5}
301     \textfloatsep@set@SCALE{0.5}

```

```

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

```

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

```

\RescaleSecLengths 319 \newcommand{\RescaleLengths}[1]{%
\RescaleFloatLengths 320 \RescaleSecLengths{#1}\RescaleFloatLengths{#1}\RescaleTitleLengths{#1}}
\RescaleTitleLengths 321 \newcommand{\RescaleSecLengths}[1]{%
322 %% sections
323 \abovesectionskipScale{#1}
324 \belowsections@skipScale{#1}
325 \aboveparaskipScale{#1}
326 }
327 \newcommand{\RescaleFloatLengths}[1]{%
328 %% floats
329 \floatsepScale{#1}
330 \textfloatsepScale{#1}
331 \intextsepScale{#1}
332 \dblfloatsepScale{#1}
333 \dbltextfloatsepScale{#1}
334 \abovecaptionskipScale{#1}
335 }
336 \newcommand{\RescaleTitleLengths}[1]{%
337 %% maketitle
338 \@before@title@skipScale{#1}
339 \@before@author@skipScale{#1}
340 \@between@author@skipScale{#1}
341 \@before@abstract@skipScale{#1}
342 \@after@abstracthead@skipScale{#1}
343 \@between@abstract@skipScale{#1}
344 \@before@kwd@skipScale{#1}
345 \@before@dates@skipScale{#1}
346 }

```

`\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`).**

```

347 \newlength{\MSextraHmargin}\newlength{\MSextraVmargin}
348 \setlength{\MSextraHmargin}{1in}
349 \setlength{\MSextraVmargin}{0.3in}
350 \if@manuscript
351 \renewcommand{\baselinestretch}{1.1}

```

```

352 \addtolength{\textwidth}{-2\MSextraHmargin}
353 \addtolength{\oddsidemargin}{\MSextraHmargin}
354 \setlength{\evensidemargin}{\oddsidemargin}
355 \addtolength{\textheight}{-2\MSextraVmargin}
356 \addtolength{\topmargin}{\MSextraVmargin}
357 % \raggedright
358 \fi

```

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

```

359 \renewcommand{\fps@figure}{tp}
360 \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.

```

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

```

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

```

363 \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`.

```

364 %%\widowpenalty=10000
365 %%\clubpenalty=10000

```

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

```

366 \hbadness=10000
367 \vbadness=10000
368 \setlength\hfuzz{\maxdimen}
369 \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 ...

```

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

```

```

\rmaa@FrontSecStyle

```

Headings of "front sections" (see section 2.21)

```

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

```

<pre> \mmaa@TOCTitleStyle \mmaa@TOCPartStyle \mmaa@IndexTitleStyle \mmaa@TOCAuthorStyle \mmaa@IndexAuthorStyle </pre>	<p>Commands to set style of TOC and index entries. Rewritten to avoid unnecessary font commands in the .toc and .ind files</p> <pre> 383 \newcommand{\mmaa@TOCTitleStyle}[1]{\MakeUpperCase{#1}} 384 \newcommand{\mmaa@TOCPartStyle}[1]{\mmaa@TOCTitleStyle{#1}} 385 \newcommand{\mmaa@IndexTitleStyle}[1]{#1} 386 \newcommand{\mmaa@TOCAuthorStyle}[1]{% 387 {\itshape#1}} 388 \newcommand{\mmaa@IndexAuthorStyle}[1]{% 389 \protect\mbox{\bfseries#1}} </pre>
<pre> \mmaa@KeywordStyle \mmaa@KeywordHeaderStyle </pre>	<p>The style of the keywords depends on whether we are using the newstyle option or not. If we are, then they are small.</p> <pre> 390 \ifthenelse{\boolean{@newstyle}}{ 391 \newcommand{\mmaa@KeywordStyle}[1]{% 392 {\small% 393 \if@boldkeywords 394 \bfseries\MakeUpperCase{\raggedright #1} 395 \else 396 \raggedright #1 397 \fi 398 }} 399 \newcommand{\mmaa@KeywordHeaderStyle}[1]{% 400 {\small\itshape#1}} 401 { 402 \newcommand{\mmaa@KeywordStyle}[1]{% 403 {\normalsize% 404 \if@boldkeywords\bfseries\fi\raggedright #1}} 405 \newcommand{\mmaa@KeywordHeaderStyle}[1]{% 406 {\normalsize\itshape#1}} </pre>

2.6 Page styles

<pre> \ps@mmaa </pre>	<p>The running headers for normal pages:</p> <pre> 407 \newcommand{\ps@mmaa}{% </pre> <p>nothing in either foot;</p> <pre> 408 \renewcommand{@oddfoot}{\relax}% 409 \renewcommand{@evenfoot}{\relax}% </pre> <p>page number and short author list in the even heads;</p> <pre> 410 \renewcommand{@evenhead}{\rlap{\thepage}\hfil\@shortauthor\hfil}% </pre> <p>short title and page number in the odd heads.</p> <pre> 411 \renewcommand{@oddhead}{\hfil\@shorttitle\hfil\llap{\thepage}} 412 } </pre>
<pre> \ps@mmaafirstpage </pre>	<p>The header of the first page of each article:</p> <pre> 413 \newcommand{\ps@mmaafirstpage}{% 414 \renewcommand{@oddfoot}{\hfil\thepage}% </pre> <p>footer corrected (06 Jun 2000) to have page on outside edge;</p> <pre> 415 \renewcommand{@evenfoot}{\thepage\hfil}% </pre>

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

```

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

```

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

```

443 \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

<pre> \resumen \@resumen \abstract \@abstract </pre>	<p>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.</p> <pre> 444 \newif\if@setresumen 445 \newcommand{\resumen}[1]{% 446 %% \renewcommand{\@resumen}{\selectlanguage{spanish}\#1}}% 447 \renewcommand{\@resumen}{\ignorespaces\#1}}% 448 \setresumentrue 449 \renewcommand{\abstract}[1]{% 450 \renewcommand{\@abstract}{\ignorespaces\#1}} 451 \renewcommand\ADS@abstract{\#1} 452 %% Not a good idea, since then author macros are not expanded and 453 %% cause errors later. However, by not doing it we are vulnerable to 454 %% fragile commands..... 455 \if@noexpandADS\@onelevel@sanitize{\ADS@abstract}\fi </pre>
--	---

```

456 \@abstractpresenttrue
457 }
458 \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.
459 \newcommand{\boldabstract}[1]{%
460 \gdef\ADS@abstract{#1}%
461 \renewcommand{\@abstract}{#1}%
462 \if@noexpandADS\@onelevel@sanitize{\ADS@abstract}\fi%
463 \noindent\textbf{\boldmath #1}
464 }

Default value in each case is to print out a warning if not set
465 \newcommand{\@resumen}{%
466 \setresumenfalse \ClassWarningNoLine{rmaa}{No Spanish abstract
467 (resumen) specified - if you do not speak Spanish, this will be
468 translated by the editors}%
469 \textbf{Favor de proporcionar un resumen en espa\~nol. If you are
470 unable to translate your abstract into Spanish, the editors will
471 do it for you.} }
472 \newcommand{\@abstract}{\ClassWarningNoLine{rmaa}{No abstract
473 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
474 \newcommand{\@rawtitle}{Raw Title}
475 \newcommand{\@TOCtitle}{\rmaa@TOCtitleStyle{Title for TOC}}
476 \newcommand{\rmaaIndexTitle}{\rmaa@IndexTitleStyle{Title for index}.}
477 \newcommand{\@TOCaftertitle}{}
478 \renewcommand{\title}[1]{%
479 % {\ADS@sanitize\xdef\@rawtitle{#1}}
480 \renewcommand{\@rawtitle}{\noexpand#1}
481 \let\ADS@title=\@rawtitle
482 \renewcommand{\@title}{\rmaa@TitleStyle{#1}}%
483 \renewcommand{\@TOCtitle}{\rmaa@TOCtitleStyle{#1}\@TOCaftertitle}%
484 \renewcommand{\rmaaIndexTitle}{\rmaa@IndexTitleStyle{#1}\@TOCaftertitle}.}%
485 }

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). ...
486 \newcommand{\affil}[1]{%
487 \[1.5ex]\rmaa@AffilStyle{#1}\[1.5ex]%
488 \if@firstaffil\gdef\ADS@affil{#1}\@firstaffilfalse\fi%
489 }
490 \renewcommand{\and}{and\[1.5ex]}

\altaffil Alternative affiliations are footnoted.
491 \newcommand{\altaffil}[1]{%

```

```

492 \if@firstaltaffil\gdef\ADS@affil{#1}\@firstaltaffilfalse\fi%
493 \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.

494 \newcommand{\altaffilmark}[1]{\textsuperscript{#1}}
495 \newcommand{\altaffiltext}[2]{%
496 \if@firstaltaffil\gdef\ADS@affil{#2}\@firstaltaffilfalse\fi
497 \stepcounter{footnote}%
498 \protected@xdef\@thanks{\@thanks
499 \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).

500 \newcommand{\@kwdsep}{ --- }
501 \newcommand{\ADS@kwdsep}{, }
502 \newcounter{kwdcounter}\setcounter{kwdcounter}{0}
503 \newcommand{\addkeyword}[1]{%
504 \addtocounter{kwdcounter}{1}
505 \ifthenelse{\thekwdcounter > 6}{
506 \ClassError{rmaa}{Too many keywords. A maximum of 6 keywords is allowed.}{}
507 }{}
508 \if@firstkwd%
509 \renewcommand{\@keywords}{\if@boldkeywords\uppercase{#1}\else #1\fi}
510 {\ADS@sanitize\def\ion{\plainion}\gdef\ADS@keywords{#1}}
511 \@firstkwdfalse
512 \else%
513 \edef\@keywords{\@keywords\@kwdsep \if@boldkeywords\uppercase{#1}\else #1\fi}%
514 {\ADS@sanitize\def\ion{\plainion}\xdef\ADS@keywords{\ADS@keywords\ADS@kwdsep #1}}%
515 \fi}
516 \newcommand{\ADS@sanitize}{%
517 \def\mathrm{}
518 \def\@{\ }
519 \def~{\ }
520 \def\langle{<}
521 \def\rangle{>}
522 \def\log{log }
523 \def\sin{sin }
524 \def\cos{cos }
525 \def\tan{tan }
526 \def\fd{^d.}
527 \def\fh{^h.}
528 \def\fm{^m.}
529 \def\fs{^s.}
530 \def\fdg{.}
531 \def\farcm{'.}
532 \def\farcs{'' .}
533 \def\arcdeg{}
534 \def\,{, }
535 }
536 \newcommand{\keywords}[1]{%
537 \renewcommand{\ADS@keywords}{#1}

```

```

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

```

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

```

\shortauthor 545 \newcommand{\shorttitle}[1]{%
\@shorttitle 546 \renewcommand{\@shorttitle}{\MakeUpperCase{#1}}
\@shortauthor 547 \newcommand{\shortauthor}[1]{%
548 \renewcommand{\@shortauthor}{\MakeUpperCase{#1}}
549 \newcommand{\@shorttitle}{SHORT TITLE GOES HERE}
550 \newcommand{\@shortauthor}{SHORT AUTHOR GOES HERE}

```

2.7.2 The full addresses

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

```

\@fulladdresses 551 \newlength{\@fulladdheight}
\@fulladdresses 552 \newlength{\@fulladddepth}
\@fulladdheight 553 \newsavebox{\@fulladdbbox}
\@fulladddepth 554 %% \fulladdresses command modified (11 May 2000) so that we can put
\@fulladdbbox 555 %% \fulladdresses{} in the article to suppress the output of the
556 %% addresses
557 \newcommand{\@FinalFigure}{\relax}
558 \newcommand{\FinalFigure}[1]{\renewcommand{\@FinalFigure}{#1}}
559 \newcommand{\fulladdresses}[1]{%
560 \renewcommand{\@rmaaArg}{#1}
561 \ifx\@rmaaArg\@rmaaEmpty
562 \renewcommand{\@fulladdresses}{}
563 \else
564 \renewcommand{\@fulladdresses}{
565 \normalsize%
566 \ifx\@FinalFigure\relax\else\vfill\@FinalFigure\vfill\fi
567 %%
568 \vspace*{1ex}
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 \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.**

```

579 \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.


```

580 \newcommand{\printdates}{\@printdatestrue}
581 \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 bibliography environment
2. The `\outputfulladdresses` command

```

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

```

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

```

604 \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`

```

605 \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.

```

606 \newcommand{\@outputaddresses}{%
607   % Allow option of suppressing the full addresses, in which case
608   % we just run the hook if we are not in a book style
609   \if@suppressfulladdresses
610   %% \if@book\else\@endofarticlehook\null\fi
611   \else
612   %% save the full addresses in a box for output later

```

```

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

```

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> 647 \newcommand{\@rawauthors}{Raw Authors} 648 \newcommand{\rmaaTOCauthors}{\noexpand\rmaaTOCAuthorStyle{Author list for TOC}} 649 \newcommand{\listofauthors}[1]{% 650 \renewcommand{\@rawauthors}{#1} 651 \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. Also, there should be one <code>\indexauthor</code> command for <i>each</i> author. We also add the author onto the end of the <code>\ADS@authors</code> macro and construct the</p>

`\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.

```

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

```

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 current letter in the string. `\firstletter` just prints the first letter of its argument.


```

715 \newcommand{\@accepted}{}
716 \newcommand{\@MSnum}{0000}
717 \newcommand{\@DOI@prefix}{https://doi.org/10.22201/ia.01851101p}
718 \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.

```

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

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

2.9 Bibliographic Records for ADS

`\ADS@BibCode` 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@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.

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

```
774 \newcommand{\ADS@firstpage}{...}
775 \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>776 \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>777 \newcommand{\ADS@journalname}{% 778 \if@proceedings\@conftitle\space (Eds. \@editors) \fi% 779 Revista Mexicana de Astronom\'\i{}a y Astrof\'\i{}sica% 780 \if@proceedings\space (Serie de Conferencias)\fi% 781 \space Vol. \@volume, pp. \ADS@firstpage--\ADS@lastpage\space (\@year)% 782 \space (http://www.astroscu.unam.mx/\~{rmaa}/) 783 }</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>784 \let\ADS@title=\@rawtitle 785 \newcommand{\ADS@keywords}{No keywords specified} 786 \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). .

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

```

\ADS@fulldate Other sundry data, together with user commands for bits that can be set
\ADS@lastpage by the Editors. The \ADS@url is constructed from the website (currently
\ADS@copyright http://www.astrosmo.unam.mx/rmaa/, the journal descriptor (e.g., RMxAC..10/),
\ADS@website followed by the path to the PDF file (e.g., PDF/RMxAC..10_HEW1.pdf).
\ADS@url 788 \newcommand{\ADS@website}{http://www.astrosmo.unam.mx/rmaa/}
\SetWebsite 789 \newcommand{\ADS@url}
\SetMonthNumeric 790 {\ADS@website\ADS@journal\ADS@volume\ADS@number/PDF/\ADS@journal\ADS@volume\ADS@number\_artic
791 \newcommand{\ADS@number}{}
792 \newcommand{\ADS@fulldate}{00/\ADS@year}
793 \newcommand{\ADS@lastpage}{00}
794 \newcommand{\ADS@copyright}{(C) \ADS@year; Instituto de Astronom\i{a},
795 Universidad Nacional Aut\onoma de M\exico}
796 \newcommand{\SetNumber}[1]{\renewcommand{\ADS@number}{-#1}}

```



```

797 \newcommand{\SetWebsite}[1]{\renewcommand{\ADS@website}{#1}}
798 \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.

799 \newcommand{\ADS@references}{}
800 \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`.

```

801 \edef\EndBib{\expandafter@gobble\string\end\string{thebibliography}\string}}
802 \edef\StartBib{\expandafter@gobble\string\begin\string{thebibliography}\string}}
803 \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.

```

804 \newif\ifAnotherLine
805 \newif\ifInBib

```

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

```

806 \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).

```

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

```

Open the current file again for reading

```

809 \begingroup
810 \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`.

```

811 \AnotherLinetrue\InBibfalse
812 \makeOther\ \makeOther\\\makeOther\%%
813 \makeOther#\makeOther^\makeOther^^K%
814 \makeOther\_ \makeOther^A\makeOther\%%
815 \makeOther~ \makeOther{\makeOther\}\makeOther\&%
816 \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`.

```

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

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

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

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

\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.

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

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

`\ADS@dumpdata` `\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` `\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`.

```

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

```

2.10 Automatic calculation of the page range

Another issue that has cost me a lot of grief. Still, it finally seems to be sorted now. All hail Jeff Goldberg.

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`.

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

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

`\@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.

```

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

```

`\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.

```

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

```

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

```

935 \renewcommand{\maketitle}{\par
936   \begin{group}

```

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

```

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

```

```

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

```

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

```

958 %% \setcounter{footnote}{0}%
959 \let\thanks\relax\let\affil\relax\let\altaffil\relax
960 \let\maketitle\relax\let\@maketitle\relax
961 \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.

```

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

```

```

992 \fi
993 \if@guide
994 \rmaa@ReceivedStyle{Version \rmaa@version, \rmaa@date}
995 \fi
996 \vskip\@before@abstract@skip%
997 \if@abstractpresent
998 \parbox{\rmaa@AbstractWidthFrac\textwidth}{%
999 \setlength{\parindent}{0.9cm}%
1000 \centerline{\rmaa@AbstractHeaderStyle{Abstract}}\par%
1001 \vskip\@after@abstracthead@skip%
1002 \if@newstyle\noindent\fi\@abstract
1003 \vskip\@between@abstract@skip%
1004 \centerline{\rmaa@AbstractHeaderStyle{Resumen}}\par%
1005 \vskip\@after@abstracthead@skip%
1006 \if@newstyle\noindent\fi\@resumen
1007 \if@setresumen\else\@abstract\fi % append english abstract if
1008 % spanish one not set
1009 \if@guide\else %do not use keywords for guide
1010 \vskip\@before@kwd@skip%
1011 % Format the Key Words with hanging indentation:
1012 % They are put in a \parbox with width equal to the line width
1013 % minus the width of the header.
1014 { % Widths of keyword
1015 \settowidth{\@kwhwidth}{\@keywordheader~} % header and
1016 \setlength{\@kwtwidth}{\linewidth} % keyword text
1017 \addtolength{\@kwtwidth}{-\@kwhwidth} %
1018 \noindent\@keywordheader~\parbox[t]{\@kwtwidth}{%
1019 \rmaa@KeywordStyle{\boldmath\uppercase{\@keywords}}}%
1020 \fi
1021 }
1022 \fi
1023 \end{center}%
1024 \vspace*{\@afterkwdskip}
1025 \par
1026 }
1027 \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.
1028 \newcommand{\reviewarticle}{\@reviewarticletrue}
1029 \newcommand\reviewtoc{%
1030 \section*{CONTENTS}%
1031 \@starttoc{rtc}%
1032 }
1033 \newcommand\reviewlof{%
1034 \section*{LIST OF FIGURES}%
1035 \@starttoc{lof}%
1036 }

\l@section
1037 \renewcommand*\l@section[2]{%
1038 \ifnum \c@tocdepth >\z@
1039 \addpenalty\@secpenalty
1040 \addvspace{0.8em \@plus\p@}%
1041 \setlength\@tempdima{1.5em}%

```

```

1042 \beginngroup
1043 \parindent \z@ \rightskip \@pnumwidth
1044 \parfillskip -\@pnumwidth
1045 \leavevmode %\bfseries
1046 \advance\leftskip\@tempdima
1047 \hskip -\leftskip
1048 #1\nobreak\hfil \nobreak\hb@xt@\@pnumwidth{\hss #2}\par
1049 \endgroup
1050 \fi}

```

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

```

1051 \newcommand{\@MSmaketitle}{%
1052 \if@debug\ClassInfo{rmaa}{Using special MS maketitle command}\fi
1053 \newpage
1054 {
1055 \thispagestyle{rmaafirstpage}
1056 % \setlength{\parindent}{0pt}
1057 \null\vskip 2ex
1058 \begin{center}
1059 \@title\par
1060 \@author\par
1061 \rmaa@ReceivedStyle{%
1062 \ifx\@received\@rmaaEmpty
1063 Draft version: \@date
1064 \else
1065 Received: \@received
1066 \ifx\@accepted\@rmaaEmpty
1067 \else
1068 ; Accepted: \@accepted
1069 \fi
1070 \fi}\par
1071 \end{center}
1072 \@thanks
1073 \centerline{\rmaa@AbstractHeaderStyle{Resumen}}
1074 \noindent\@resumen\par\vskip 2ex
1075 \centerline{\rmaa@AbstractHeaderStyle{Abstract}}
1076 \noindent\@abstract\par\vskip 2ex
1077 \noindent\@keywordheader~\rmaa@KeywordStyle{\@keywords}\par
1078 % \@keywordheader~\rmaa@KeywordStyle{\uppercase{\@keywords}}\par
1079 }%
1080 }

```

2.13 The sectioning commands

```

\section Redefine all the standard commands to use these lengths.
\subsection 1081 \renewcommand\section{\@startsection {section}{1}{\z@}%
\subsubsection 1082 {\abovesectionskip}%
\subsubsection 1083 {\belowsectionskip}%
\paragraph 1084 %% how do we get upper case here
\subparagraph 1085 {\centering\reset@font\normalsize}}
1086 \renewcommand\subsection{\@startsection{subsection}{2}{\z@}%
1087 {\abovesectionskip}%
1088 {\belowsectionskip}%
1089 {\centering\reset@font\normalsize\itshape}}

```



```

1090 \renewcommand\subsubsection{\@startsection{subsubsection}{3}{\z@}%
1091         {\abovesectionskip}%
1092         {\belowsectionsip}%
1093         {\centering\reset@font\normalsize\itshape}}
1094 \renewcommand\paragraph{\@startsection{paragraph}{4}{\z@}%
1095         {\aboveparaskip}%
1096         {\belowparaskip}%
1097         {\reset@font\normalsize\bfseries}}
1098 \renewcommand\subparagraph{\@startsection{subparagraph}{5}{\parindent}%
1099         {\aboveparaskip}%
1100         {\belowparaskip}%
1101         {\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.

```
1102 \setcounter{secnumdepth}{3}
```

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

```

1103 \renewcommand{\thesubsection}{\upshape\thesection.\@arabic\c@section}}
1104 \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

```
1105 \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.

```

1106 \def\@sect#1#2#3#4#5#6[#7]#8{
1107   \ifnum #2>\c@secnumdepth
1108     \let\@svsec\@empty
1109   \else
1110     \refstepcounter{#1}%
1111     \let\@protect\protect
1112     \def\protect{\noexpand\protect\noexpand}%
1113     \edef\@svsec{\@secntformat{#1}}%
1114     \let\protect\@protect
1115   \fi

```

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

```

1116   \ifnum #2=1
1117     \def\sec@upcase##1{\uppercase{##1}}%
1118     \def\sec@shape{\upshape}%
1119   \else
1120     \def\sec@upcase##1{\relax{##1}}%
1121     \def\sec@shape{\itshape}%
1122   \fi
1123   \@tempskipa #5\relax
1124   \ifdim \@tempskipa>\z@
1125     \begingroup #6\relax

```

```

1126         \@hangfrom{\hskip #3\relax\@svsec}%
1127         {\interlinepenalty \@M \sec@upcase{#8}\par}%
1128     \endgroup
1129     \csname #1mark\endcsname{#7}%

```

Only write TOC entries if doing the Guide style.

```

1130     \if@guide
1131         \addcontentsline{toc}{#1}{%
1132             \ifnum #2>\c@secnumdepth \else
1133                 \protect\numberline{\csname the#1\endcsname}%
1134             \fi
1135             #7}%
1136     \fi

```

Also allow per-article TOC for review papers

```

1137     \if@reviewarticle
1138         \ifnum #2>2 \else
1139             \addcontentsline{rtc}{#1}{%
1140                 \protect\numberline{\csname the#1\endcsname}%
1141                 \sec@upcase{\sec@shape #7}}%
1142         \fi
1143     \fi
1144 \else
1145     \def\@svsechd{#6\hskip #3\relax %% \relax added 2 May 90
1146         \@svsec #8\csname #1mark\endcsname{#7}%
1147         \if@guide
1148             \addcontentsline{toc}{#1}{%
1149                 \ifnum #2>\c@secnumdepth \else
1150                     \protect\numberline{\csname the#1\endcsname}%
1151                 \fi
1152                 #7}%
1153         \fi
1154     }%
1155 \fi
1156 \@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.

```

1157 \newenvironment{appendices}{\par
1158     \begingroup
1159     \setcounter{section}{0}%
1160     \setcounter{subsection}{0}%
1161     \renewcommand\thesection{\@Alph\c@section}
1162     \renewcommand\theequation{\thesection\arabic{equation}}
1163     \medskip
1164     \section*{APPENDICES}}
1165 {\endgroup}

```

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

```

1166 \renewenvironment{appendix}{\par
1167   \begingroup
1168   \setcounter{section}{0}%
1169   \setcounter{subsection}{0}%
1170   \renewcommand\thesection{\@Alph@c@section}
1171   \renewcommand\theequation{\thesection\arabic{equation}}
1172   \medskip
1173   \section*{APPENDIX}}
1174 {\endgroup}

```

2.15 Floating thingies

```

1175 \renewcommand{\thetable}{\@arabic@c@table}
1176 \renewcommand{\thefigure}{\@arabic@c@figure}
1177 \renewcommand{\figurename}{Fig.}
1178 \renewcommand{\tablename}{TABLE}
1179 %\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.

```

1180 \renewcommand{\fnum@table}{TABLE~\thetable}
1181 \renewcommand{\fnum@figure}{Fig.~\thefigure}

```

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

```

1182 \long\def\@makefigcap#1#2{%
1183   \if@proceedings\else\small\fi
1184   \if@newstyle\small\fi
1185   \vskip\abovecaptionskip
1186   \sbox\@tempboxa{#1. #2}%
1187   \ifdim \wd\@tempboxa >\hsize
1188     #1. #2 \par
1189   \else
1190     \global \@minipagefalse
1191     \hb@xt@\hsize{\hfil\box\@tempboxa\hfil}%
1192   \fi
1193   \vskip\belowcaptionskip}

```

Make sure table caption is upper case.

```

1194 \long\def\@maketabcap#1#2{%
1195   \hbox to\hsize{\hfil #1 \hfil}
1196   \vskip 6pt
1197   \centering\MakeUpperCase{#2}\par
1198   \vskip 6pt}
1199 \newlength{\@roottabcapwidth}
1200 \long\def\@makerottabcap#1#2{%
1201   \setbox\@tempboxa\hbox{\MakeUpperCase{#2}}%
1202   \ifdim\wd\@tempboxa >.8\vsiz
1203     \setlength{\@roottabcapwidth}{.8\vsiz}
1204   \else
1205     \setlength{\@roottabcapwidth}{\wd\@tempboxa}
1206   \fi
1207   \rotatebox{90}{%
1208     \begin{minipage}{\vsiz}\centering
1209     \begin{minipage}{\@roottabcapwidth}\centering
1210       #1\\ \vskip 6pt \MakeUpperCase{#2}

```

```

1211     \end{minipage}%
1212 \end{minipage}
1213 }%
1214 \hskip 6pt
1215 }
1216
1217 \newenvironment{Sideways}
1218   {\begin{sideways}\begin{minipage}{\vsize}\centering}
1219   {\end{minipage}\end{sideways}}
1220
1221 \newenvironment{Sidewaystable}
1222 {%
1223   \let\oldcaption=\caption%
1224   \def\caption{
1225     \def\@capytype{table}\renewcommand{\@makecaption}{\@maketabcap}
1226     \oldcaption
1227   \begin{sidewaystable}\centering}
1228   {\end{sidewaystable}\let\caption=\oldcaption}
1229 \newenvironment{Sidewaystable*}
1230 {%
1231   \let\oldcaption=\caption%
1232   \def\caption{
1233     \def\@capytype{table}\renewcommand{\@makecaption}{\@maketabcap}
1234     \oldcaption
1235   \begin{sidewaystable*}\centering}
1236   {\end{sidewaystable*}\let\caption=\oldcaption}

```

Not sure why we need to stick these lines in.

```

1237 \renewenvironment{figure}
1238   {\renewcommand{\@makecaption}{\@makefigcap}\@float{figure}}
1239   {\end@float}
1240 \renewenvironment{figure*}
1241   {\renewcommand{\@makecaption}{\@makefigcap}\@dblfloat{figure}}
1242   {\end@dblfloat}
1243 \renewenvironment{table}
1244   {\renewcommand{\@makecaption}{\@maketabcap}\@float{table}}
1245   {\end@float}
1246 \renewenvironment{table*}
1247   {\renewcommand{\@makecaption}{\@maketabcap}\@dblfloat{table}}
1248   {\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.

```

1249 \long\def\caption#1[#2]#3{%
1250   \par
1251   %% \addcontentsline{\csname ext@#1\endcsname}{#1}%
1252   %% {\protect\numberline{\csname the#1\endcsname}{\ignorespaces #2}}%
1253   \begingroup
1254     \@parboxrestore
1255     \if@minipage
1256       \setminipage
1257     \fi
1258     \normalsize
1259     \@makecaption{\csname fnum@#1\endcsname}{\ignorespaces #3}\par
1260   \endgroup}

```

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

```

1261 \renewcommand{\arraystretch}{1.15}
1262 \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
\tabcaptioncontinued of acheiving this). \tabcaptioncontinued is a user command for setting the
                caption of a continued table on the next page.

1263 \newcommand{\@tablecols}[1]{\renewcommand{\@tablecols}{#1}}
1264 \newcommand{\@tablecols}{1}
1265 \newcommand{\tabcaptioncontinued}{%
1266   \multicolumn{\@tablecols}{c}{\addtocounter{table}{-1}TABLE~\thetable\ (CONTINUED)} \\\ \\\
1267 }

```

2.15.1 Footnotes in tables

```

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

\tablenoteskip 1268 \newcommand\tablenotemark[1]{${\mathrm{#1}}$}
1269 \newcommand\tablenote[2]{\if@proceedings\else\small\fi ${\mathrm{#1}}$ #2}
1270 \newcommand\tablenoteskip{\[0.5\baselineskip]}

\tabnotemark    Alternative way of doing footnotes in tables.
\tabnotetext    1271 \newcommand{\tabnotemark}[1]{\textsuperscript{\lowercase{#1}}}
\tabnotetextTWO 1272 %\newcommand{\tabnotetextTWO}[4]{\tabnotetext{#1}{#2}\tabnotetext{#3}{#4}}
1273 \newcommand{\tabnotetextTWO}[4]{%
1274   \multicolumn{\@tablecols}{l}{%
1275     \parbox{0.5\tabnotewidth}{\small\textsuperscript{#1}#2}%
1276     \parbox{0.5\tabnotewidth}{\small\textsuperscript{#3}#4}%
1277   }%
1278 }
1279 \newcommand{\tabnotetext}[2]{%
1280   \multicolumn{\@tablecols}{@{}p{\tabnotewidth}@{}{\small\textsuperscript{#1}#2}}\}
1281 \newlength{\tabnotewidth}

changemargin
1282 % Command to allow margins to be changed on the fly. Useful to allow
1283 % tables and Figures to protrude into the margins.
1284 %
1285 % \changes{3.24}{2007/09/14}{Added \texttt{changemargin} environment
1286 % (copied from TeX FAQ).}
1287 \newenvironment{changemargin}[2]{%
1288   % From TeX FAQ http://www.tex.ac.uk/cgi-bin/texfaq2html?label=chngmargonfly
1289   \begin{list}{}{%
1290     \setlength{\topsep}{0pt}%
1291     \setlength{\leftmargin}{#1}%
1292     \setlength{\rightmargin}{#2}%
1293     \setlength{\listparindent}{\parindent}%
1294     \setlength{\itemindent}{\parindent}%
1295     \setlength{\parsep}{\parskip}%
1296   }%
1297   \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.

```
1298 \newlength{\beforebibliostkip}
1299 \setlength{\beforebibliostkip}{0pt}
1300 \newlength{\afterbibliostkip}
1301 \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.

```
1302 \renewenvironment{thebibliography}{%
1303   \if@book\RereadBiblio\fi
1304   %% \vspace*{\beforebibliostkip}
1305   \section*{REFERENCES} \frenchspacing
1306   %% \vspace*{\afterbibliostkip}
1307   \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.

```
1308 \list{\null}{\leftmargin 1.5em\labelwidth\z@\labelsep\z@\itemindent -1.5em
1309   \itemsep\z@\parsep\z@\usecounter{enumi}}
1310 \sloppy\clubpenalty4000\widowpenalty4000
1311 \sfcode'\.=1000\relax\@biblisttrue}
1312 {\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 1313 \newcommand{\articlename}{anon}
1314 \AtBeginDocument{
1315   \let\oldcite=\cite
1316   \let\oldnocite=\nocite
1317   \let\oldref=\ref
1318   \let\oldpageref=\pageref
1319   \let\oldlabel=\label
1320 }
```

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.

```

1321 \AtBeginDocument{
1322   \renewcommand{\ref}[1]{\oldref{\articlename:#1}%
1323     \if@debug{\ClassInfo{rmaa}{Reference to \articlename:#1}}\fi}
1324   \renewcommand{\pageref}[1]{\oldpageref{\articlename:#1}%
1325     \if@debug{\ClassInfo{rmaa}{Page reference to \articlename:#1}}\fi}
1326   \renewcommand{\label}[1]{\oldlabel{\articlename:#1}%
1327     \if@debug{\ClassInfo{rmaa}{Label for \articlename:#1}}\fi}%
1328   \@begofarticlehook
1329 }%

```

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, \citet, etc. instead.

```

1330 \renewcommand{\nocite}[1]{\@bsphack
1331   \@for\@citeb:=#1\do{%
1332     \edef\@citeb{\expandafter\@firstofone\@citeb:\articlename}%
1333     \if@files\immediate\write\@auxout{\string\citation{\@citeb}}\fi
1334     \ifundefined{b@\@citeb:\articlename}{\G@refundefinedtrue
1335       \latex@warning{Citation '\@citeb' undefined}}{}}%
1336   \@esphack}
1337 \renewcommand{\cite}[1]{\oldcite{#1:\articlename}}
1338 %   \end{macrocode}
1339
1340
1341 % Horrible fiddling with the bibliography citation mechanism.
1342 % This has to be globally available in case rmaacite puts it in the
1343 % \texttt{.aux} file.
1344 %   \begin{macrocode}
1345 \def\lbbibcite#1#2#3{\global\@namedef{b@#1}{#2}
1346   \global\@namedef{by@#1}{#3}}

```

\oldbibitem Of course, \bibitem needs to get the uniquification treatment as well. While we
 \@rmaaBibArg are at it, we redefine it to use consecutive integers for the key if the user leaves
 \@rmaaSpace it blank (using the counter rmaabib). This allows one to put \bibitem{} for
 rmaabib 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 unify 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.

```

1347 \if@natbib\def\@extra@b@citeb{: \articlename}\fi
1348 %%\else
1349 \let\oldbibitem\bibitem
1350 \newcommand{\@rmaaBibArg}{}
1351 \newcommand{\@rmaaSpace}{ }
1352 \newcounter{rmaabib}
1353 \if@natbib

```

```

1354 \renewcommand{\bibitem}[2][ABC(2003)]{%
1355   \renewcommand{\@rmaabibarg}{#2}
1356   \ifx\@rmaabibarg\@rmaaEmpty
1357     \addtocounter{rmaabib}{1}
1358     \oldbibitem[#1]{\thermaabib:\articlename}
1359   \else\ifx\@rmaabibarg\@rmaaSpace
1360     \addtocounter{rmaabib}{1}
1361     \oldbibitem[#1]{\thermaabib:\articlename}
1362   \else
1363     \oldbibitem[#1]{#2:\articlename}
1364   \fi\fi
1365   \renewcommand{\@rmaabibarg}{}
1366 }
1367 \else
1368 \renewcommand{\bibitem}[1]{%
1369   \renewcommand{\@rmaabibarg}{#1}
1370   \ifx\@rmaabibarg\@rmaaEmpty
1371     \addtocounter{rmaabib}{1}
1372     \oldbibitem{\articlename:\thermaabib}
1373   \else\ifx\@rmaabibarg\@rmaaSpace
1374     \addtocounter{rmaabib}{1}
1375     \oldbibitem{\articlename:\thermaabib}
1376   \else
1377     \oldbibitem{\articlename:#1}
1378   \fi\fi
1379   \renewcommand{\@rmaabibarg}{}
1380 }
1381 \fi
1382 %%\fi

```

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

```

oldscite 1383 \newcommand{\@redefinebibitem}{%
1384   \let\oldbibitem\bibitem
1385   \let\oldcite\cite
1386   \let\oldpcite\pcite
1387   \let\oldscite\scite
1388   \def\bibitem[##1<##2>]##3{%
1389     \renewcommand{\@rmaabibarg}{##3}
1390     \ifx\@rmaabibarg\@rmaaEmpty
1391       \addtocounter{rmaabib}{1}
1392       \oldbibitem[##1<##2>]{\thermaabib:\articlename}
1393     \else\ifx\@rmaabibarg\@rmaaSpace
1394       \addtocounter{rmaabib}{1}
1395       \oldbibitem[##1<##2>]{\thermaabib:\articlename}
1396     \else
1397       \oldbibitem[##1<##2>]{##3:\articlename}
1398     % trust the author here
1399   %% \oldbibitem[##1<##2>]{##3}
1400   \fi\fi
1401 }
1402 }

```

2.18 HTML Table of Contents

\HyperTOCEntry These commands are used to write information to the .htoc file, which is used in generating a Web Page of the Table of Contents. Since they only ever appear

\HyperTOCpart

\HyperTOCmeeting

\HyperTOCeditors

\HyperTOCpreamble

preceded by `\protect` in the argument to an `\addtocontents` command, they should never need to be expanded by the macros. However, we define them here just in case ...

```
1403 \newcommand{\HyperTOCEntry}[3]{\relax}
1404 \newcommand{\HyperTOCpart}[1]{\relax}
1405 \newcommand{\HyperTOCmeeting}[3]{\relax}
1406 \newcommand{\HyperTOCeditors}[1]{\relax}
1407 \newcommand{\HyperTOCpreamble}{\relax}
```

2.19 Formatting the poster abstracts

These can now be used without using the book option.

```
1408
1409 \newcommand{@makeminititle}{%
1410   \newpage
1411   \null
1412   \vskip 3em%
1413   \begin{center}%
1414     {\@title \par}%
1415   \end{center}
1416   \vskip 3em%
1417 }
1418
1419 \newif\if@abstractsads
1420 \@abstractsadsfalse
1421 \newcommand\abstractsADS{\@abstractsadstrue}
1422
1423 \if@book\RequirePackage{multicol}\fi
1424 \newenvironment{abstracts}[1][Abstracts of Contributed Papers]{%
1425   %% First, make sure we start on an odd page (06 Jun 2000)
1426   \if@book\clearpage\thispagestyle{empty}\cleardoublepage\fi
1427   %%
1428   \renewcommand{\articlename}{ABSTRACTS}
1429   \title{#1}\shortauthor{Abstracts}\shorttitle{Abstracts}
1430   \listofauthors{}
1431   \if@book
1432     \addcontentsline{toc}{chapter}{\protect\@fiddleauthors{\@TOCtitle}{\rmaaTOCauthors}}%
1433     \addtocontents{htc}{\protect\HyperTOCEntry{\@rawtitle}{\@rawauthors}{\articlename}}
1434   \fi
1435   \pagestyle{rmaa} % this now seems necessary (06 Jun 2000)
1436   \thispagestyle{rmaafirstpage}
1437   %% \twocolumn[\@makeminititle]
1438   \renewcommand{\abstract}[1]{%
1439     \renewcommand\ADS@abstract{##1}%
1440     \renewcommand{\@abstract}{##1}\@writeabstract%
1441   }
1442   \renewcommand{\title}[2][{}]{%
1443     \gdef\ADS@authors{}%
1444     \gdef\ADS@affil{}%
1445     \gdef\ADS@references{}%
1446     \gdef\ADS@keywords{}%
1447     \renewcommand{\@rmaaArg}{##1}
1448     \ifx\@rmaaArg\@rmaaEmpty
1449       \renewcommand{\@TOCaftertitle}{}
1450     \else
```

```

1451      \renewcommand{\@TOCaftertitle}{ (\@rmaaArg) }
1452      \fi
1453      \renewcommand{\@title}{\rmaa@TOCTitleStyle{##2}}%
1454      \renewcommand{\@TOCTitle}{\rmaa@TOCTitleStyle{##2}\@TOCaftertitle}%
1455      \renewcommand{\rmaaIndexTitle}{\rmaa@IndexTitleStyle{##2}\@TOCaftertitle.}}%
1456      \renewcommand\ADS@title{##2}%
1457      \xdef\ADS@firstpage{\@arabic{\c@page}}%
1458      }
1459      \renewcommand{\author}[1]{\let\@thanks\@empty\renewcommand\@author{##1} }
1460      \renewcommand{\footnotetext}[2][XX]{\par\noindent\textsuperscript{##1}~##2}
1461      \renewcommand{\footnoterule}{\kern-3\p@ \hrule \@width 3em \kern 2.6\p@}
1462      \if@book\@begofarticlehook\fi
1463      \if@book\begin{multicols}{2}[\@makeminititle]\else\@makeminititle\fi
1464      \begin{group}
1465      \setcounter{footnote}{0}
1466      }% and at the end of the environment....
1467      {\endgroup\if@book\end{multicols}\listofabstracts\label{RMAALastPage}\clearpage\fi}
1468 %% auxiliary commands used:
1469 %% \@writeabstract does all the actual formatting
1470 \newcommand{\@writeabstract}{%
1471   \if@book%
1472     \addcontentsline{loa}{abstract}{\protect\@fiddleauthors{\@TOCTitle}{\rmaaTOCauthors}}%
1473   \fi%
1474   \begin{center}\@title\par\@author\end{center}
1475   \@abstract
1476   \par\noindent\footnoterule\nobreak\footnotesize\@thanks
1477   \par\noindent\hrulefill\goodbreak
1478   \vskip 1cm \@plus0.5cm
1479   %% write ADS entry
1480   \if@book\if@abstractsads\ADS@dumpdata\fi\fi%
1481   \endgroup % this pair is to make each abstract a self-contained group
1482   \begin{group}
1483   \setcounter{footnote}{0}
1484   }
1485
1486 \if@book
1487 %% List of abstracts (stuff written to .loa file)
1488 \newcommand{\listofabstracts}{%
1489   \begin{multicols}{2}{%
1490     \vskip 1.5cm \vfill % leave at least 1.5 cm and go to bottom of page if possible
1491     \centerline{\MakeUpperCase{List of Abstracts}}
1492     \vskip 1.5cm \@plus0.5cm
1493     ][6cm] % this makes it start a new page if there is not at least 6cm of space
1494     \renewcommand{\@fiddleauthors}[2]{##1\hskip 1em plus 2em minus 0.4em\penalty-100 #2}
1495     \parindent\z@
1496     %% \parskip.5\p@ \@plus .7\p@\relax
1497     \parskip3\p@ \@plus 1\p@ \@minus 1\p@\relax % allow quite a lot of
1498                                     % leeway here to avoid breaks inside
1499                                     % entries
1500     \renewcommand{\@}{\relax} % temporarily turn off explicit line breaks just in case
1501     \renewcommand{\altaffilmark}[1]{\relax} % ditto with this
1502     \@starttoc{loa}
1503   \end{multicols}
1504   }
1505 \newcommand*{\l@abstract}[2]{%
1506   \par\penalty-1000
1507   #1\hskip 1em\penalty0\null\nobreak\hfill#2}

```

```
1508 \fi
1509
```

2.20 Code for typesetting an entire volume of conference proceedings

```
1510
1511 \if@book
1512 %% environment for including the individual articles
1513 \newcommand{\@fiddleauthors}[2]{\relax}
1514 \renewcommand{\theequation}{\@arabic\c@equation}
1515 \newenvironment{articles}%
1516 { \begin{group} % make it a group so that author definitions do not
1517   % spill over
1518   \gdef\ADS@authors{}
1519   \pagestyle{rmaa}
1520   \renewenvironment{document}{%
1521     \@begofarticlehook
1522     \addtocounter{chapter}{1}%
1523     \addcontentsline{toc}{chapter}{%
1524       \protect\@fiddleauthors{\@TOCTitle}{\rmaaTOCauthors}}%
1525     \addtocontents{htc}{\protect\HyperTOCEntry{\@rawtitle}{\@rawauthors}{\articlename}}
1526     }\relax}
1527 \renewcommand{\documentclass}[2][foo]{\relax}
1528 \renewcommand{\usepackage}[2][foo]{%
1529   \def\@packagename{##2}\def\@rmaacitename{rmaacite}%
1530   \ifx\@packagename\@rmaacitename
1531     \@rmcitetrue\ClassInfo{rmaa}{This paper uses rmaacite}%
1532     \makeatletter\input{rmaacite.sty}\makeatother % read it in here so that all changes
1533     % are local to paper
1534     \if@debug\ClassWarning{rmaa}{Package \@packagename\space was requested by \articlename\space}
1535     \fi
1536   %% Don't allow individual articles to mess with the pages, volume or year
1537   \renewcommand{\SetFirstPage}[1]{\relax}
1538   \renewcommand{\SetYear}[1]{\relax}
1539   \renewcommand{\SetVolume}[1]{\relax}
1540   \renewcommand{\SetConfTitle}[1]{\relax}
1541   %% Don't allow individual articles to change these
1542   \renewcommand{\nonstopmode}{\relax}
1543   \renewcommand{\scrollmode}{\relax}
1544   \renewcommand{\outputplates}{\relax}
1545   %% XXXX need to check if using rmaacite and act accordingly
1546   %% avoid multiple declarations of the same length
1547   \let\oldnewlength=\newlength
1548   \renewcommand{\newlength}[1]{%
1549     \edef\reserved@a{\expandafter\@gobble\string ##1}%
1550     \@ifundefined{reserved@a}{%
1551       \oldnewlength{##1}}{%
1552       \if@debug\ClassInfo{rmaa}{\reserved@a\space already defined: doing nothing}}\fi%
1553     \relax}%
1554   \renewcommand\newcommand{\providecommand}
1555 }%
1556 \endgroup\onecolumn}
1557
1558
```

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

```

1559 \newcommand{\article}[2][\%
1560 % optional first argument is extra text to put in brackets after title in TOC
1561 % e.g. ``Invited Talk'' or ``Poster''
1562 \renewcommand{\articlename}{#2}
1563 % reset loads of counters
1564 \setcounter{footnote}{0}
1565 \setcounter{figure}{0}
1566 \setcounter{table}{0}
1567 \setcounter{section}{0}
1568 \setcounter{equation}{0}
1569 \setcounter{rmaabib}{0}
1570 \setcounter{author}{0}
1571 \setcounter{AUTHOR}{1}
1572 \gdef\ADS@authors{\%
1573 \gdef\ADS@affil{\%
1574 \gdef\ADS@affiliations{\%
1575 \gdef\ADS@references{\%
1576 \@firstauthortrue
1577 \@firstaffiltrue
1578 \@firstaltaffiltrue
1579 \@firstkwddtrue
1580 \@rmcitefalse
1581 \if@suppressfulladdresses\else\@needaddressestrue\fi
1582 \renewcommand{\@rmaaArg}{#1}
1583 \ifx\@rmaaArg\@rmaaEmpty
1584 \renewcommand{\@TOCaftertitle}{}
1585 \else
1586 \renewcommand{\@TOCaftertitle}{ (#1)}
1587 \fi

```

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

```

1588 \if@journal\clearpage\thispagestyle{empty}\cleardoublepage\fi
1589 %% Now input the file, then run the end-of-article hook (reinstated 28
1590 %% Sep 2001)
1591 {\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.

```

1592 \newcommand{\session}[1]{
1593 %% this does nothing except write an entry in the TOC
1594 \addcontentsline{toc}{part}{\rmaa@TOCPartStyle{#1}}
1595 \addtocontents{htc}{\protect\HyperTOCpart{#1}}
1596 %% and also makes sure we start on an odd page (added 06 Jun 2000)
1597 \clearpage\thispagestyle{empty}\cleardoublepage
1598 \stepcounter{part}
1599 \if@sessiontitlepages{%
1600 \onecolumn
1601 \thispagestyle{empty}
1602 \renewcommand{\articlename}{Section\thepart TitlePage}
1603 \label{RMAAFirstPage}
1604 \make@session@title{#1}
1605 \label{RMAALastPage}
1606 \clearpage\thispagestyle{empty}\cleardoublepage
1607 }\fi
1608 }
1609 \newcommand{\make@session@title}[1]{%
1610 {%

```

```

1611 \setlength\parindent{0pt}
1612 \vspace*{\stretch{1}}
1613 \rule{\linewidth}{1mm}
1614 \begin{flushright}\Huge\bfseries\boldmath
1615 #1
1616 \end{flushright}
1617 \rule{\linewidth}{1mm}
1618 \vspace*{\stretch{2}}
1619 }
1620 }

Command to turn on separate title pages for each session.
1621 \newcommand{\SessionTitlePages}{\@sessiontitlepagestrue}
1622 \newcommand{\BoldSessionTitles}{%
1623 \renewcommand{\rmaa@TOCPartStyle}[1]{\textbf{\rmaa@TOCTitleStyle{##1}}}
1624 }
1625 \newcommand{\ArticleDir}[1]{\renewcommand{\@articledir}{#1/\graphicspath{{1/}}}}
1626 \newcommand{\@articledir}{.}
1627 %\newcommand{\ps@rmaafront}{\ps@rmaa}% page style for front matter (same as ever, actually)
1628 \newcommand{\ps@rmaafront}{% page style for front matter: page # in each foot
1629 \renewcommand{\@oddfoot}{\hfil\thepage}}%
1630 \renewcommand{\@evenfoot}{\thepage\hfil}%
1631 % shorttitle in both heads
1632 \renewcommand{\@evenhead}{\hfil\@shorttitle\hfil}%
1633 \renewcommand{\@oddhead}{\@evenhead}
1634 }
1635 \newcommand{\ps@rmaafrontfirstpage}{% page style for first page of front matter
1636 % page # in each foot, on outside edge
1637 \renewcommand{\@oddfoot}{\hfil\thepage}%
1638 \renewcommand{\@evenfoot}{\thepage\hfil}%
1639 % nothing in the even heads
1640 \renewcommand{\@evenhead}{\relax}%
1641 \renewcommand{\@oddhead}{\relax}%
1642 }
1643 %% slight modification to the standard \frontmatter and \mainmatter
1644 %% commands, just to set the \pagestyle
1645 \renewcommand\frontmatter{%
1646 \latexonecolumn
1647 \cleardoublepage
1648 \@frontmattertrue
1649 \@mainmatterfalse
1650 \pagenumbering{roman}
1651 \pagestyle{rmaafront}
1652 \addtocounter{page}{2} % leave space for the title page
1653 }
1654 \renewcommand\mainmatter{%
1655 \pagestyle{empty}
1656 \if@rmtwocol\twocolumn\fi
1657 \cleardoublepage
1658 \@frontmatterfalse
1659 \@mainmattertrue
1660 \pagenumbering{arabic}
1661 \pagestyle{rmaa}
1662 }
1663 \renewcommand\backmatter{%
1664 \clearpage\pagestyle{empty}\cleardoublepage
1665 \@mainmatterfalse
1666 %% put extra space in the TOC

```

```
1667 \addtocontents{toc}{\bigskip}
1668 }
```

2.21 Front sections

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

```
1669 \newcommand{\notitle}{\@titlevisiblefalse} \newcommand{\shortname}{}
1670 \newenvironment{frontsection}[3][\%
1671 \begin{group}
1672 \renewcommand{\shortname}{#1}
1673 \ifx\shortname\@rmaasEmpty
1674 \renewcommand{\articlename}{#2}
1675 \else
1676 \renewcommand{\articlename}{\shortname}
1677 \fi
1678 \@begofarticlehook
1679 \@titlevisibletrue % default
1680 \thispagestyle{rmaafirstpage}
1681 \listofauthors{} % blank out this in case it is not specified
1682 \title{#2}\shorttitle{#2}\shortauthor{#2}
1683 #3 % evaluate the command given as second mandatory arg
1684 \addcontentsline{toc}{chapter}{\protect\@fiddleauthors{\@TOCtitle}{\rmaaTOCauthors}}%
1685 \addtocontents{htc}{\protect\HyperTOCEntry{\@rawtitle}{\@rawauthors}{\articlename}}
1686 \if@titlevisible
1687 \vspace*{1cm}\centerline{\rmaa@FrontSecStyle{\@title}}\vspace*{1cm}
1688 \fi
1689 \setlength{\parskip}{3ex}
1690 }\frontlabel{RMAALastPage}\clearpage\endgroup}

1691 %% Definition of the command \frontlabel, which rights out something like 'F4' to
1692 %% the .aux file, instead of '\textlatin{i}'. This is so it is easy to post-process
1693 %% the file for making PS files of individual sections
1694 \newcommand{\frontlabel}[1]{\%
1695 \@bsphack
1696 \protected@write\@auxout{}%
1697 {\string\newlabel{\articlename:#1}{F{\@arabic{\c@page}}}}
1698 \@esphack
1699 }

1700 %% User command to say X, Y, Z, Editors of the Proceedings
1701 \newcommand{\EditorSignature}{\vspace*{\parskip}\rightline{\@editors}%
1702 \rightline{Editors of the proceedings}}
1703 %% Fiddle with \thesection, etc. so that they don't include the chapter number
1704 %% Basically go back to the 'article' definitions of these
1705 \renewcommand{\thesection}{\@arabic{\c@section}}
```

```

1706 \renewcommand{\thefigure}{\@arabic\c@figure}
1707 \renewcommand{\thetable}{\@arabic\c@table}
1708
1709 \newcommand{\@oldargs}{}
1710 \newcommand{\@newargs}{}
1711 %% add TOC entry for each paper
1712 %% \renewcommand{\title}[1]%
1713 %{\renewcommand{\@title}{\rmma@TitleStyle{#1}}}%
1714 %\addtocounter{chapter}{1}\addcontentsline{toc}{chapter}{#1}%
1715 %}
1716
1717 %% Formatting of the table of contents
1718 %% dimensions of various parts
1719 \newlength{\TOCtextwidth}\setlength{\TOCtextwidth}{12.65cm}
1720 \newlength{\TOCpagemumwidth}\setlength{\TOCpagemumwidth}{1.3cm}
1721 \newlength{\TOCentrywidth}\setlength{\TOCentrywidth}{\TOCtextwidth}
1722 \addtolength{\TOCentrywidth}{-\TOCpagemumwidth}
1723 \newlength{\TOCextramargin}\setlength{\TOCextramargin}{1.25cm}
1724 \newcommand{\TOCbox}[1]{\hspace{\TOCextramargin}\parbox{\TOCtextwidth}{#1}\par}
1725 \newlength{\TOCextramarginx}\setlength{\TOCextramarginx}{\TOCextramargin}\addtolength{\TOCextramarginx}{\TOCtextwidth}
1726 \newlength{\TOCtextwidthx}\setlength{\TOCtextwidthx}{\TOCtextwidth}\addtolength{\TOCtextwidthx}{\TOCextramarginx}
1727 \newcommand{\TOCboxx}[1]{\hspace{\TOCextramarginx}\parbox{\TOCtextwidthx}{#1}\par}
1728
1729 \newcommand{\RMAAbannerimage}{rmssc}
1730 \renewcommand\tableofcontents{%
1731   \renewcommand{\articlename}{CONTENTS}
1732   \begingroup
1733   \@begofarticlehook
1734   \if@twocolumn
1735     \@restonecoltrue\onecolumn
1736   \else
1737     \@restonecolfalse
1738   \fi
1739   %% 9pt for journal style
1740   \if@proceedings\else\small\fi
1741   \if@newstyle\small\fi %% same for new style
1742   \if@proceedings\thispagestyle{\rmmafrontfirstpage}\else\thispagestyle{empty}\fi
1743   \shortauthor{Contents}\shorttitle{Contents}
1744   \vspace*{18mm}
1745   \if@printbanner
1746     %% put in the banner header (need to get better image of this)
1747     \TOCbox{\hspace*{-0.15cm}\includegraphics[width=0.9\TOCtextwidth]{\RMAAbannerimage}}
1748     \vspace*{8mm}
1749     %% volume and publication date (should really be in funny font)
1750     \TOCboxx{\@volumen\[\[2mm] \@mes\ \@anyo}
1751   \else
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*{12.5mm}
1755     %% volume and publication date (should really be in funny font)
1756     \TOCboxx{~\[\[2mm] ~}
1757   \fi
1758   \vspace*{16mm}
1759   %% This is the command that fiddles with the TOC entry so that the
1760   %% title is flushleft but the authors are flushright
1761   \renewcommand{\@fiddleauthors}[2]{%
1762     % first put the paper title

```

```

1763 \renewcommand{\}\{\relax} % temporarily turn off explicit line breaks just in case
1764 \renewcommand{\altaffilmark}[1]{\relax} % ditto with this
1765 \renewcommand{\textsuperscript}[1]{\relax} % ditto with this
1766 ##1
1767 % now save the author list in a box
1768 \sbox\@tempboxa{##2}%
1769 % check that box is shorter than the total width available for the entry
1770 \ifdim \wd\@tempboxa <\TOCentrywidth
1771 % if so, then put it right here, flush against right margin
1772 \penalty10000\hskip1em plus10em\penalty0\hbox{}\nobreak\hfill\box\@tempboxa
1773 % Note that we force a space of at least 1em between title and authorlist,
1774 % stretchable to 11em since we may have very short titles but still with an
1775 % authorlist too long to go on the same line. The only linebreak allowed is
1776 % directly before the authorlist.
1777 \else
1778 % if it is too long, we set the original authorlist text in its own parbox
1779 \par\vskip1ex\parbox[b]{\TOCentrywidth}{\raggedleft ##2}
1780 \fi
1781 }
1782 \@starttoc{toc}%
1783 \if@restonecol\twocolumn\fi
1784 \frontlabel{RMAALastPage}
1785 \clearpage
1786 \thispagestyle{empty}
1787 \cleardoublepage % make sure we start on an odd page
1788 \endgroup
1789
1790 %% ALSO, do the HTML TOC
1791 %% The file that will be used to make the HTML TOC
1792 \@starttoc{htc}
1793 %% All the stuff in this file does nothing in the book style
1794 \addtocontents{htc}{\protect\HyperTOCmeeting{\@conftitle}{\@reunionplace}{\@reuniondate}}
1795 \addtocontents{htc}{\protect\HyperTOCeditors{\@editors}}
1796 \addtocontents{htc}{\protect\HyperTOCpreamble}
1797 \addtocontents{htc}{\protect\HyperTOCentry{Table of Contents}{\@articlename}}
1798
1799 %% and the ADS file
1800 \ADS@openfile
1801 }
1802 %% This is now much simpler
1803 \renewcommand\l@chapter[2]{%TOC entry for articles
1804 \ifnum \c@tocdepth >\m@ne
1805 \vskip 1.0em \@plus\p@
1806 \TOCbox{%
1807 \parbox[b]{\TOCentrywidth}{#1}\parbox[b]{\TOCpagenumwidth}{\hfill#2}
1808 }
1809 \fi}
1810 \renewcommand\l@part[2]{%TOC entry for sessions: centered, no page number
1811 \ifnum \c@tocdepth >\m@ne
1812 \vskip 1.5em \@plus1.5em \goodbreak
1813 \TOCbox{%
1814 \parbox[b]{\TOCentrywidth}{\hfil#1\hfil}\hfill
1815 }
1816 \fi\nobreak}
1817
1818 %% Formatting the index
1819 %% strongly encourage page breaks between index entries

```



```

1820 \renewcommand{\@idxitem}{\par\penalty-1000\hangindent.45cm}
1821 \renewcommand{\indexspace}{\par\penalty-1000\vskip 10\p@ \@plus15\p@ \@minus3\p@\relax}
1822 \renewenvironment{theindex}{%
1823   %% first, make sure we start on an odd page (06 Jun 2000)
1824   \clearpage\thispagestyle{empty}\cleardoublepage
1825   %% this looks a bit like an article but is two columns and without abstract, etc
1826   \renewcommand{\articlename}{INDEX}
1827   \title{Author Index}\shortauthor{Author Index}\shorttitle{Author Index}
1828   \listofauthors{}
1829   \addcontentsline{toc}{chapter}{\protect\@fiddleauthors{\@TOCtitle}{\rmaaTOCauthors}}%
1830   \addtocontents{htc}{\protect\HyperTOCEntry{\@rawtitle}{\@rawauthors}{\articlename}}
1831   \pagestyle{rmaa}
1832   \thispagestyle{rmaafirstpage}
1833   \@begofarticlehook
1834   %% 9pt for journal style
1835   \if@proceedings\else\small\fi
1836   \if@newstyle\small\fi
1837   \twocolumn[\@makeminititle]
1838   %% vertical spacing (see also definition of \@idxitem and \indexspace
1839   \parskip\z@ \@plus .6\p@\relax % allow quite a lot of leeway here to avoid breaks inside ent
1840   %% horizontal spacing, breaking and glue parameters (see also the stuff in the definition
1841   %% of \indexauthor
1842   \parindent\z@
1843   \exhyphenpenalty10000 % don't break on explicit hyphens, it always looks bad
1844   \rightskip=0pt plus.2em % allow a tiny bit of leeway at the ends of lines
1845   \spaceskip.3333em plus.5em minus.15em % a lot of leeway between words
1846   \xspaceskip.5em plus.5em minus.4em % this seems to have no effect
1847   \let\item\@idxitem
1848   \renewcommand{\@}{\relax} % temporarily turn off explicit line breaks just in case
1849   \renewcommand{\altaffilmark}[1]{\relax} % ditto with this
1850   \renewcommand{\textsuperscript}[1]{\relax} % ditto with this
1851   }\@label{RMAALastPage}\clearpage} % clearpage necessary so that we know about \shortauthor
1852
1853
1854
1855 %% end definitions for book styles
1856 \fi
1857

```

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.

```

1858 \newcommand\ColorOnlineOnly{%
1859   \textsc{Note: this figure is available in color in the electronic
1860     version of this article, obtainable from}
1861   \texttt{http://\discretionary{}{}{}www.\discretionary{}{}{}astroscu.\discretionary{}{}{}unam
1862   %% Plates
1863   %% Define 2 counters: plate is the number in the whole document, plateloop is used
1864   %% internally by \outputplates
1865   \newcounter{plate}
1866   \newcounter{plateloop}
1867   %% Currently limited to 15 plates in document
1868   %% when we do a label, we need to write to \newlabel entries to the .aux file, one
1869   %% that says RMAAPlateX so that it can be referred to in \outputplates, and one that
1870   %% says articlename:RMAAPlateX so that the dvips program can find it and associate it
1871   %% with the right article
1872   \newcommand{\@platelabeli}{\oldlabel{RMAAPlate1}\label{RMAAPlate1}}

```

```

1873 \newcommand{\@platelabelii}{\oldlabel{RMAAPlate2}\label{RMAAPlate2}}
1874 \newcommand{\@platelabeliii}{\oldlabel{RMAAPlate3}\label{RMAAPlate3}}
1875 \newcommand{\@platelabeliv}{\oldlabel{RMAAPlate4}\label{RMAAPlate4}}
1876 \newcommand{\@platelabelv}{\oldlabel{RMAAPlate5}\label{RMAAPlate5}}
1877 \newcommand{\@platelabelvi}{\oldlabel{RMAAPlate6}\label{RMAAPlate6}}
1878 \newcommand{\@platelabelvii}{\oldlabel{RMAAPlate7}\label{RMAAPlate7}}
1879 \newcommand{\@platelabelviii}{\oldlabel{RMAAPlate8}\label{RMAAPlate8}}
1880 \newcommand{\@platelabelix}{\oldlabel{RMAAPlate9}\label{RMAAPlate9}}
1881 \newcommand{\@platelabelx}{\oldlabel{RMAAPlate10}\label{RMAAPlate10}}
1882 \newcommand{\@platelabelxi}{\oldlabel{RMAAPlate11}\label{RMAAPlate11}}
1883 \newcommand{\@platelabelxii}{\oldlabel{RMAAPlate12}\label{RMAAPlate12}}
1884 \newcommand{\@platelabelxiii}{\oldlabel{RMAAPlate13}\label{RMAAPlate13}}
1885 \newcommand{\@platelabelxiv}{\oldlabel{RMAAPlate14}\label{RMAAPlate14}}
1886 \newcommand{\@platelabelxv}{\oldlabel{RMAAPlate15}\label{RMAAPlate15}}
1887 \newcommand{\@outputplatelabeli}{\oldlabel{RMAAOutputPlate1}}
1888 \newcommand{\@outputplatelabelii}{\oldlabel{RMAAOutputPlate2}}
1889 \newcommand{\@outputplatelabeliii}{\oldlabel{RMAAOutputPlate3}}
1890 \newcommand{\@outputplatelabeliv}{\oldlabel{RMAAOutputPlate4}}
1891 \newcommand{\@outputplatelabelv}{\oldlabel{RMAAOutputPlate5}}
1892 \newcommand{\@outputplatelabelvi}{\oldlabel{RMAAOutputPlate6}}
1893 \newcommand{\@outputplatelabelvii}{\oldlabel{RMAAOutputPlate7}}
1894 \newcommand{\@outputplatelabelviii}{\oldlabel{RMAAOutputPlate8}}
1895 \newcommand{\@outputplatelabelix}{\oldlabel{RMAAOutputPlate9}}
1896 \newcommand{\@outputplatelabelx}{\oldlabel{RMAAOutputPlate10}}
1897 \newcommand{\@outputplatelabelxi}{\oldlabel{RMAAOutputPlate11}}
1898 \newcommand{\@outputplatelabelxii}{\oldlabel{RMAAOutputPlate12}}
1899 \newcommand{\@outputplatelabelxiii}{\oldlabel{RMAAOutputPlate13}}
1900 \newcommand{\@outputplatelabelxiv}{\oldlabel{RMAAOutputPlate14}}
1901 \newcommand{\@outputplatelabelxv}{\oldlabel{RMAAOutputPlate15}}
1902 \newcommand{\@platerefii}{\oldpageref{RMAAPlate1}}
1903 \newcommand{\@platerefiii}{\oldpageref{RMAAPlate2}}
1904 \newcommand{\@platerefiv}{\oldpageref{RMAAPlate3}}
1905 \newcommand{\@platerefv}{\oldpageref{RMAAPlate4}}
1906 \newcommand{\@platerefvii}{\oldpageref{RMAAPlate5}}
1907 \newcommand{\@platerefviii}{\oldpageref{RMAAPlate6}}
1908 \newcommand{\@platerefviii}{\oldpageref{RMAAPlate7}}
1909 \newcommand{\@platerefviii}{\oldpageref{RMAAPlate8}}
1910 \newcommand{\@platerefix}{\oldpageref{RMAAPlate9}}
1911 \newcommand{\@platerefix}{\oldpageref{RMAAPlate10}}
1912 \newcommand{\@platerefixi}{\oldpageref{RMAAPlate11}}
1913 \newcommand{\@platerefixii}{\oldpageref{RMAAPlate12}}
1914 \newcommand{\@platerefixiii}{\oldpageref{RMAAPlate13}}
1915 \newcommand{\@platerefixiv}{\oldpageref{RMAAPlate14}}
1916 \newcommand{\@platerefixv}{\oldpageref{RMAAPlate15}}
1917 \newcounter{figplatei}
1918 \newcounter{figplateii}
1919 \newcounter{figplateiii}
1920 \newcounter{figplateiv}
1921 \newcounter{figplatev}
1922 \newcounter{figplatevi}
1923 \newcounter{figplatevii}
1924 \newcounter{figplateviii}
1925 \newcounter{figplateix}
1926 \newcounter{figplatex}
1927 \newcounter{figplatexi}
1928 \newcounter{figplatexii}
1929 \newcounter{figplatexiii}

```

```

1930 \newcounter{figlatexiv}
1931 \newcounter{figlatexv}
1932 %% Printed output should use the counter 'plate'
1933 \renewcommand{\theplate}{\@arabic\c@plate}
1934 \renewcommand{\theplateloop}{\@arabic\c@plateloop}
1935 %% Command to output all the saved plates in this paper
1936 \newcommand{\outputplates}{%
1937   \setcounter{plateloop}{0}
1938   \if@book\else\@endofarticlehook\fi % not entirely sure why, but this
1939                                     % seems to be needed
1940   \clearpage % first output the last page of text
1941   % now set pagestyle for blank even pages and make sure we start on an odd page
1942   \pagestyle{empty}
1943   \cleardoublepage
1944   \onecolumn
1945   \parindent\z@
1946   % first put in an extra sheet
1947   % the main purpose of this is so there is always a blank even page before
1948   % each plate for filling in the PS file if the article has an odd number
1949   % of pages (see splitbook.sh)
1950   \null\vfil\centerline{PLATES}\vfil\clearpage\pagestyle{rmaaplate}\cleardoublepage
1951   % output each plate in turn
1952   \@whilenum\value{plateloop}<\value{plate}\do{%
1953     \addtocounter{plateloop}{1}
1954     % restore the figure counter from \@figcounti, \@figcountii, etc
1955     \setcounter{figure}{\value{figplate}\roman{plateloop}}
1956     % spew out the plate (in its own group for safety)
1957     {\csname @plate\roman{plateloop}\endcsname\par}
1958   }
1959   \pagestyle{rmaa}
1960   % reset the page number as if nothing had happened
1961   \addtocounter{page}{-\value{plate}}
1962   \addtocounter{page}{-\value{plate}}
1963 }
1964 \newcommand\figcaption{%
1965   \def\@capttype{figure}
1966   \renewcommand{\@makecaption}{\@makefigcap}
1967   \caption}
1968 \newcommand\tabcaption{%
1969   \def\@capttype{table}
1970   \renewcommand{\@makecaption}{\@maketabcap}
1971   \caption}
1972
1973 \newcommand{\plate}[2][1]{%
1974   %% User command to make a plate page:
1975   %% Mandatory argument is what goes on the plate - this should not
1976   %% include any floating environments (e.g. figure). Instead, \figcaption
1977   %% should be used to do the captions.
1978   %% Optional argument is the number of figures (i.e. captions) on the plate
1979   %% page (default is 1). This is necessary for incrementing the figure counter.
1980   %%
1981   %% Note that we have to use a \gdef rather than an \xdef when we
1982   %% save the plate output in a command. This means that in the book styles when it
1983   %% comes to spewing out the plate, we will have forgotten about any user macros
1984   %% that may have been defined. This can be got round by repeating the macros inside the plat
1985   %% (Presumably, one would use a \newcommand rather than \renewcommand if they were new.)
1986   % increment global and local counters

```

```

1987 \addtocounter{plate}{1}
1988 % write appropriate label to .aux file
1989 \csname @platelabel\roman{plate}\endcsname
1990 % define a global macro called \@platei, \@plateii, \@plateiii, \@plateiv, ...
1991 \expandafter\gdef\csname @plate\roman{plate}\endcsname{%
1992   \csname @outputplatelabel\roman{plateloop}\endcsname
1993   \null\vfil #2 \vfil
1994   \cleardoublepage
1995 }
1996 % save the current shortauthor and shorttitle
1997 % need to be \xdef to take current values of \@shortauthor, etc
1998 \expandafter\xdef\csname @shorta\roman{plate}\endcsname{\@shortauthor}
1999 \expandafter\xdef\csname @shortt\roman{plate}\endcsname{\@shorttitle}
2000 % save the current value of the figure counter for later use in \outputplates
2001 \setcounter{figplate\roman{plate}}{\value{figure}}
2002 % increment the figure counter according to the optional argument
2003 \addtocounter{figure}{#1}
2004 }
2005 %% page style for plate pages
2006 \newcommand{\ps@rmaaplate}{%
2007   % Plate X (see page Y) in the foot
2008   \renewcommand\@oddfoot{\hfil\csname @shorta\roman{plateloop}\endcsname\
2009     (see page~\csname @plateref\roman{plateloop}\endcsname)\hfil}%
2010   \renewcommand\@evenfoot{\relax}%
2011   % nothing in even heads (blank pages)
2012   \renewcommand\@evenhead{\relax}
2013   % short title and page num in the odd heads
2014   \renewcommand\@oddhead{\hfil\csname @shortt\roman{plateloop}\endcsname%
2015     \hfil\llap{PLATE~\theplateloop}}
2016 }
2017
2018
2019
2020
2021
2022 %% Things for the User Guide
2023 \if@guide
2024 %% stolen from doc.sty
2025 \def\MakeShortVerb#1{%
2026   \expandafter\ifx\csname cc\string#1\endcsname\relax
2027     \@shortvrbinfo{Made }{#1}%
2028     \add@special{#1}%
2029     \expandafter
2030     \xdef\csname cc\string#1\endcsname{\the\catcode`#1}%
2031     \beginingroup
2032     \catcode`\~\active \lccode`\~`#1%
2033     \lowercase{%
2034       \global\expandafter\let
2035       \csname ac\string#1\endcsname~%
2036       \gdef`{\verb`}}%
2037     \endgroup
2038     \global\catcode`#1\active
2039     \else
2040     \@shortvrbinfo\@empty{#1 already}%
2041     \fi}
2042 \def>DeleteShortVerb#1{%
2043   \expandafter\ifx\csname cc\string#1\endcsname\relax

```

```

2044 \else
2045 \@shortvrbinf{Deleted }{#1 as}%
2046 \rem@special{#1}%
2047 \global\catcode`#1\csname cc\string#1\endcsname
2048 \global\expandafter\let\csname cc\string#1\endcsname\relax
2049 \ifnum\catcode`#1=\active
2050 \beginingroup
2051 \catcode`\~\active \lccode`\~`#1%
2052 \lowercase{%
2053   \global\expandafter\let\expandafter~%
2054   \csname ac\string#1\endcsname}%
2055 \endgroup \fi \fi}
2056 \def\@shortvrbinf#1#2{%
2057   \PackageInfo{doc}{%
2058     #1\expandafter\@gobble\string#2 a short reference
2059     for \string\verb}}
2060 \def\add@special#1{%
2061   \rem@special{#1}%
2062   \expandafter\gdef\expandafter\dospecials\expandafter
2063   {\dospecials \do #1}%
2064   \expandafter\gdef\expandafter\@sanitize\expandafter
2065   {\@sanitize \@makeother #1}}
2066 \def\rem@special#1{%
2067   \def\do##1{%
2068     \ifnum`#1=`##1 \else \noexpand\do\noexpand##1\fi}%
2069   \xdef\dospecials{\dospecials}%
2070   \beginingroup
2071   \def\@makeother##1{%
2072     \ifnum`#1=`##1 \else \noexpand\@makeother\noexpand##1\fi}%
2073   \xdef\@sanitize{\@sanitize}%
2074   \endgroup}
2075 %% define | as shortcut for \verbatim
2076 \MakeShortVerb{|}
2077 %% comand to specify arguments to LaTeX commands
2078 \newcommand{\rmArg}[1]{%
2079   \ensuremath{\langle}\rangle{\scriptsize \textsf{\MakeUpperCase{#1}}}\ensuremath{\rangle}}
2080 \newcommand{\rmArg}[1]{\ensuremath{\langle}\rangle\textsc{#1}\ensuremath{\rangle}}
2081 \providecommand{\BibTeX}{\rmfamily B\kern-.05em%
2082   \textsc{i}\kern-.025em b\kern-.08em%
2083   T\kern-.1667em\lower.7ex\hbox{E}\kern-.125emX}}
2084 %% Environment for code examples
2085 \newenvironment{Code}{%
2086   \begin{list}{}{\setlength{\leftmargin}{0.05\columnwidth}}
2087   \item[]\end{list}}
2088 \fi
2089 \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.

```

2090 \newcommand{\adshtml-style}
2091 \newcommand{\RMAA}{RMxAA}
2092 \newcommand{\RMAAlong}{Revista Mexicana de Astronom\`{\i}a y Astrof\`{\i}sica}

```

```

2093 \newcommand{\RMAASC}{RMxAC}
2094 \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.
2095 \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
2096 \newcommand{\ThisVolume}[1]{%
2097 \@year, \if@proceedings\RMAASC\else\RMAA\fi, \@volume,
2098 \if@book\oldpageref{#1:RMAAFirstPage}\else 000\fi\ (this volume)}

Other stuff that may be useful in ref lists.
2099 \newcommand{\etal}{et al.\@}

Various new commands from AAS macros
2100 \def\acknowledgments{\vskip 3ex plus .8ex minus .4ex}
2101 \let\acknowledgements=\acknowledgments % second spelling
2102 \let\jnl@style=\rm
2103 \def\ref@jnl#1{{\jnl@style#1}}
2104 \DeclareRobustCommand\aj{\ref@jnl{AJ}}
2105 \DeclareRobustCommand\araa{\ref@jnl{ARA\&A}}
2106 \DeclareRobustCommand\apj{\ref@jnl{ApJ}}
2107 \DeclareRobustCommand\apjl{\ref@jnl{ApJ}}
2108 \DeclareRobustCommand\apjs{\ref@jnl{ApJS}}
2109 \DeclareRobustCommand\ao{\ref@jnl{Appl.\~Opt.}}
2110 \DeclareRobustCommand\apss{\ref@jnl{Ap\&SS}}
2111 \DeclareRobustCommand\AAP{\ref@jnl{A\&A}}
2112 \DeclareRobustCommand\Aapr{\ref@jnl{A\&A\~Rev.}}
2113 \DeclareRobustCommand\AAS{\ref@jnl{A\&AS}}
2114 \DeclareRobustCommand\AZh{\ref@jnl{AZh}}
2115 \DeclareRobustCommand\BAAS{\ref@jnl{BAAS}}
2116 \DeclareRobustCommand\JRASC{\ref@jnl{JRASC}}
2117 \DeclareRobustCommand\MmRAS{\ref@jnl{MmRAS}}
2118 \DeclareRobustCommand\MNRAS{\ref@jnl{MNRAS}}
2119 \DeclareRobustCommand\PhysA{\ref@jnl{Phys.\~Rev.\~A}}
2120 \DeclareRobustCommand\PhysB{\ref@jnl{Phys.\~Rev.\~B}}
2121 \DeclareRobustCommand\PhysC{\ref@jnl{Phys.\~Rev.\~C}}
2122 \DeclareRobustCommand\PhysD{\ref@jnl{Phys.\~Rev.\~D}}
2123 \DeclareRobustCommand\PhysE{\ref@jnl{Phys.\~Rev.\~E}}
2124 \DeclareRobustCommand\PhysLett{\ref@jnl{Phys.\~Rev.\~Lett.}}
2125 \DeclareRobustCommand\PASP{\ref@jnl{PASP}}
2126 \DeclareRobustCommand\PASJ{\ref@jnl{PASJ}}
2127 \DeclareRobustCommand\QJRAS{\ref@jnl{QJRAS}}
2128 \DeclareRobustCommand\S\&T{\ref@jnl{S\&T}}
2129 \DeclareRobustCommand\solphys{\ref@jnl{Sol.\~Phys.}}
2130 \DeclareRobustCommand\sovast{\ref@jnl{Soviet\~Ast.}}
2131 \DeclareRobustCommand\SpaceSci{\ref@jnl{Space\~Sci.\~Rev.}}
2132 \DeclareRobustCommand\ZAp{\ref@jnl{ZAp}}
2133 \DeclareRobustCommand\Nature{\ref@jnl{Nature}}
2134 \DeclareRobustCommand\IAUCirc{\ref@jnl{IAU\~Circ.}}
2135 \DeclareRobustCommand\AstrophysLett{\ref@jnl{Astrophys.\~Lett.}}
2136 \DeclareRobustCommand\AstrophysSpacePhysRes{\ref@jnl{Astrophys.\~Space\~Phys.\~Res.}}
2137 \DeclareRobustCommand\BullAstronInstNetherlands{\ref@jnl{Bull.\~Astron.\~Inst.\~Netherlands}}
2138 \DeclareRobustCommand\FundCosmicPhys{\ref@jnl{Fund.\~Cosmic\~Phys.}}
2139 \DeclareRobustCommand\GeochimCosmochimActa{\ref@jnl{Geochim.\~Cosmochim.\~Acta}}

```

```

2140 \DeclareRobustCommand\grl{\ref@jnl{Geophys.~Res.~Lett.}}
2141 \DeclareRobustCommand\jcp{\ref@jnl{J.~Chem.~Phys.}}
2142 \DeclareRobustCommand\jgr{\ref@jnl{J.~Geophys.~Res.}}
2143 \DeclareRobustCommand\jqsr{\ref@jnl{J.~Quant.~Spec.~Radiat.~Transf.}}
2144 \DeclareRobustCommand\memsai{\ref@jnl{Mem.~Soc.~Astron.~Italiana}}
2145 \DeclareRobustCommand\nphysa{\ref@jnl{Nucl.~Phys.~A}}
2146 \DeclareRobustCommand\physrep{\ref@jnl{Phys.~Rep.}}
2147 \DeclareRobustCommand\physscr{\ref@jnl{Phys.~Scr}}
2148 \DeclareRobustCommand\planss{\ref@jnl{Planet.~Space~Sci.}}
2149 \DeclareRobustCommand\procsapie{\ref@jnl{Proc.~SPIE}}
2150 \let\astap=\aap
2151 \let\apjlett=\apjl
2152 \let\apjsupp=\apjs
2153 \let\applopt=\ao
2154 \def\phn{\phantom{0}}
2155 \def\phd{\phantom{.}}
2156 \def\phs{\phantom{\ensuremath{-}}}
2157 \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.

```

2158 %%\def\sun{\hbox{$\odot$}}
2159 \DeclareRobustCommand\sun{\ensuremath{\odot}}
2160 %%\def\earth{\hbox{$\oplus$}}
2161 \DeclareRobustCommand\earth{\ensuremath{\oplus}}
2162 %%\def\lessim{\mathrel{\hbox{\rlap{\hbox{\lower4pt\hbox{$\sim$}}}\hbox{$<$}}}}
2163 %%\def\gtrsim{\mathrel{\hbox{\rlap{\hbox{\lower4pt\hbox{$\sim$}}}\hbox{$>$}}}}
2164 \DeclareRobustCommand\lessim{\mathrel{\hbox{\smaller\smaller\rlap{\hbox{\lower3pt\hbox{$\sim$}}}}}
2165 \DeclareRobustCommand\gtrsim{\mathrel{\hbox{\smaller\smaller\rlap{\hbox{\lower3pt\hbox{$\sim$}}}}}
2166 %%\def\lta{\mathrel{\spose{\lower 3pt\hbox{$\mathchar"218$}}}}
2167 %%\def\lta{\mathrel{\spose{\lower 3pt\hbox{$\mathchar"218$}}}}
2168 %%\def\lta{\mathrel{\spose{\lower 3pt\hbox{$\mathchar"218$}}}}
2169 %%\def\lta{\mathrel{\spose{\lower 3pt\hbox{$\mathchar"218$}}}}
2170 \DeclareRobustCommand\sq{\hbox{\rlap{$\sqcap$}$\sqcup$}}
2171 %%\def\arcdeg{\hbox{$^\circ$}}
2172 %%\def\arcmin{\hbox{$^\prime$}}
2173 %%\def\arcsec{\hbox{$^\prime\prime$}}
2174 \DeclareRobustCommand\arcdeg{\ensuremath{^\circ}}
2175 \DeclareRobustCommand\arcmin{\ensuremath{^\prime}}
2176 \DeclareRobustCommand\arcsec{\ensuremath{^\prime\prime}}
2177 %%\def\fd{\hbox{$.\!\!\!^\circ$}}
2178 %%\def\fh{\hbox{$.\!\!\!^\circ$}}
2179 %%\def\fm{\hbox{$.\!\!\!^\circ$}}
2180 %%\def\fs{\hbox{$.\!\!\!^\circ$}}
2181 %%\def\fdg{\hbox{$.\!\!\!^\circ$}}
2182 %%\def\farcm{\hbox{$.\!\!\!^\circ$}}
2183 %%\def\farcs{\hbox{$.\!\!\!^\circ$}}
2184 %%\def\fp{\hbox{$.\!\!\!^\circ$}}
2185 \DeclareRobustCommand\fd{\ensuremath{.\!\!\!^\circ}}
2186 \DeclareRobustCommand\fh{\ensuremath{.\!\!\!^\circ}}
2187 \DeclareRobustCommand\fm{\ensuremath{.\!\!\!^\circ}}
2188 \DeclareRobustCommand\fs{\ensuremath{.\!\!\!^\circ}}
2189 \DeclareRobustCommand\fdg{\ensuremath{.\!\!\!^\circ}}
2190 \DeclareRobustCommand\farcm{\ensuremath{.\!\!\!^\circ}}
2191 \DeclareRobustCommand\farcs{\ensuremath{.\!\!\!^\circ}}
2192 %%\DeclareRobustCommand\farcs{\ensuremath{.\!\!\!^\circ}}

```

```

2193 \DeclareRobustCommand\fp{\ensuremath{.\!\!^{\scriptscriptstyle\rm p}}}}
2194 %%\def\micron{\hbox{$\mu$}}
2195 \DeclareRobustCommand\micron{\ensuremath{\mu\mathrm{m}}}
2196 \let\la=\lessssim
2197 \let\ga=\gtrsim
2198 %%\def\case#1#2{\hbox{$\frac{#1}{#2}$}}
2199 %%\def\slantfrac#1#2{\hbox{$\,\!^{\scriptscriptstyle\rm p}\!/\!_{\scriptscriptstyle\rm p}$}}
2200 %%\def\onehalf{\slantfrac{1}{2}}
2201 %%\def\onethird{\slantfrac{1}{3}}
2202 %%\def\twothirds{\slantfrac{2}{3}}
2203 %%\def\onequarter{\slantfrac{1}{4}}
2204 %%\def\threequarters{\slantfrac{3}{4}}
2205 \DeclareRobustCommand\case[2]{\ensuremath{\frac{#1}{#2}}}
2206 \DeclareRobustCommand\slantfrac[2]{\ensuremath{\,\!^{\scriptscriptstyle\rm p}\!/\!_{\scriptscriptstyle\rm p}}}
2207 \DeclareRobustCommand\onehalf{\slantfrac{1}{2}}
2208 \DeclareRobustCommand\onethird{\slantfrac{1}{3}}
2209 \DeclareRobustCommand\twothirds{\slantfrac{2}{3}}
2210 \DeclareRobustCommand\onequarter{\slantfrac{1}{4}}
2211 \DeclareRobustCommand\threequarters{\slantfrac{3}{4}}
2212 %%\def\ubvr{\hbox{$U\!BV\!R$}}
2213 %%\def\ub{\hbox{$U\!-\!B$}}
2214 %%\def\bv{\hbox{$B\!-\!V$}}
2215 %%\def\vr{\hbox{$V\!-\!R$}}
2216 %%\def\ur{\hbox{$U\!-\!R$}}

```

New commands for “photometric” colors

```

2217 \DeclareRobustCommand\ubvr{\ensuremath{U\!BV\!R}}
2218 \DeclareRobustCommand\Color[2]{%
2219   \ensuremath{%
2220     #1\!\!{\ifx#1V\!\!{\fi-\!#2
2221   }}
2222 \DeclareRobustCommand\ub{\Color{U}{B}}
2223 \DeclareRobustCommand\bv{\Color{B}{V}}
2224 \DeclareRobustCommand\vr{\Color{V}{R}}
2225 \DeclareRobustCommand\ur{\Color{U}{R}}
2226 %% 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.

```

2227 \DeclareRobustCommand\ion[2]{%
2228   \mbox{#1\kern0.2em%
2229     \smaller\rmfamily%
2230     \edef\@tempa{\@car#2\@nil}%
2231     \ifcat1\@tempa%
2232       \@Roman{#2}%
2233     \else%
2234       \uppercase{#2}%
2235     \fi}}
2236 \newcounter{IonStage}
2237 \DeclareRobustCommand\plainion[2]{\setcounter{IonStage}{#2}\#1 \Roman{IonStage}}
2238 %%\def\ion#1#2{\ensuremath{\mathrm{#1}}\;}\{\protect\small\rm\@Roman{#2}}\}
2239 \DeclareRobustCommand\nodata{$\cdots$}

```

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

```

2240 \let\@small=\small
2241 \let\@normalsize=\normalsize

```



```

2242 \let\@footnotesize=\footnotesize
2243 \let\@scriptsize=\scriptsize
2244 \let\@tiny=\tiny
2245 \let\@large=\large
2246 \let\@Large=\Large
2247 \let\@LARGE=\LARGE
2248 \let\@huge=\huge
2249 \let\@Huge=\Huge
2250 \newcommand{\smaller}{\small}
2251 \renewcommand{\normalsize}{\renewcommand{\smaller}{\small}\@normalsize}
2252 \renewcommand{\small}{\renewcommand{\smaller}{\footnotesize}\@small}
2253 \renewcommand{\footnotesize}{\renewcommand{\smaller}{\scriptsize}\@footnotesize}
2254 \renewcommand{\scriptsize}{\renewcommand{\smaller}{\tiny}\@scriptsize}
2255 \renewcommand{\tiny}{\renewcommand{\smaller}{\tiny}\@tiny}
2256 \renewcommand{\large}{\renewcommand{\smaller}{\normalsize}\@large}
2257 \renewcommand{\Large}{\renewcommand{\smaller}{\large}\@Large}
2258 \renewcommand{\LARGE}{\renewcommand{\smaller}{\Large}\@LARGE}
2259 \renewcommand{\huge}{\renewcommand{\smaller}{\LARGE}\@huge}
2260 \renewcommand{\Huge}{\renewcommand{\smaller}{\huge}\@Huge}
2261 \end{package} \end{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.

```

2262 \newcommand{\makefile}
2263 \newcommand{\DOCFILES=rmaa.pdf}
2264 \newcommand{\MACRO_LTX_FILES=rmaa.cls rmaacite.sty adshtml.sty}
2265 \newcommand{\SHELLSCRIPTS=makeads.sh}
2266 \newcommand{\MACRO_OTHER_FILES=adshtml.perl sample.latex2html-init}
2267 \newcommand{\MAKEFILE=Makefile}
2268 \newcommand{\MACROFILES=$(MACRO_LTX_FILES) $(SHELLSCRIPTS) $(MACRO_OTHER_FILES)}
2269 \newcommand{\SKELETONFILES=ADS.tex}

```

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

```

2270 \newcommand{\INSTALL=install}
2271 \newcommand{\INSTALL_DIR=../packages}

```

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

```

2272 \all: docs macros
2273
2274 \install: install-docs install-macros

```

2275

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.

```
2276 install-macros: macros
2277     $(INSTALL) -m 444 $(MACRO_LTX_FILES) $(MACRO_OTHER_FILES) $(INSTALL_DIR)
2278     $(INSTALL) -m 555 $(SHELLSCRIPTS) $(INSTALL_DIR)
2279     $(INSTALL) -m 644 $(SKELETONFILES) $(INSTALL_DIR)
2280
2281 install-docs: docs
2282     $(INSTALL) rmaa.pdf $(INSTALL_DIR)/rm-fulldocs.pdf
2283
```

Make the PDF and gzipped PS files.

```
2284 docs: $(DOCFILES)
2285
```

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

```
2286 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.

```
2287     touch $(MACROFILES) $(MAKEFILE)
2288     chmod u+w $(MACROFILES) $(MAKEFILE) rmaa.ins
2289     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.

```
2290     cp -f $(MAKEFILE) $(MAKEFILE).BCK && unexpand $(MAKEFILE).tex >| $(MAKEFILE) && rm $(M
```

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.

```
2291     chmod a+x $(SHELLSCRIPTS)
2292     chmod a-w $(MACROFILES) $(MAKEFILE)
2293     chmod u+w $(SKELETONFILES)
2294
```

We now use PDF_{La}TeX for this.

```
2295 rmaa.idx: rmaa.dtx
2296     @echo "REGENERATING .idx FILE"
2297     pdflatex "\nonstopmode\input{rmaa.dtx}"
2298
2299 rmaa.aux: rmaa.dtx rmaa.ind rmaa.gls
2300     @echo "REGENERATING .aux FILE"
2301     pdflatex "\nonstopmode\input{rmaa.dtx}"
2302
2303 rmaa.ind: rmaa.idx
2304     @echo "REGENERATING INDEX"
2305     makeindex -s gind.ist rmaa
2306
2307 rmaa.gls: rmaa.glo
2308     @echo "REGENERATING CHANGELOG"
2309     makeindex -s gglo.ist -o rmaa.gls rmaa.glo
2310
2311 rmaa.pdf: rmaa.aux rmaa.ind rmaa.gls
```

```

2312      @echo "REGENERATING .pdf FILE"
2313      pdflatex "\nonstopmode\input{rmaa.dtx}"
2314
2315 clean:
2316      rm -f rmaa.aux rmaa.dvi rmaa.ind rmaa.gls
2317 </makefile>

```

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

```

2318 <*ins>
2319 %%
2320 %% Installation batch file for the RMAA LaTeX package
2321 %%
2322 \def\batchfile{rmaa.ins}
2323 \input docstrip.tex
2324 \preamble
2325
2326 PLEASE DO NOT EDIT THIS FILE! It is generated automatically from
2327 the file rmaa.dtx using the accompanying Makefile and rmaa.ins
2328 Any hand-edited changes will be lost
2329
2330 A LaTeX document class for the RMxAA
2331
2332 Author: William Henney (w.henney@crya.unam.mx)
2333
2334 Latest version available from: http://www.crya.unam.mx/rmaa
2335
2336 Copyright (C) 1999-2010 Instituto de Astronomia, UNAM, Mexico
2337
2338 This program is free software; you can redistribute it and/or
2339 modify it under the terms of the GNU General Public License
2340 as published by the Free Software Foundation; either version 2
2341 of the License, or (at your option) any later version.
2342
2343 This program is distributed in the hope that it will be useful,
2344 but WITHOUT ANY WARRANTY; without even the implied warranty of
2345 MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the
2346 GNU General Public License for more details.
2347
2348 You should have received a copy of the GNU General Public License
2349 along with this program; if not, write to the Free Software
2350 Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA 02111-1307, USA.
2351 \endpreamble

```

Clobber files without asking

```

2352 \askforoverwritefalse

```

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

```

2353 \generate{%
2354   \file{rmaa.cls}{\from{rmaa.dtx}{package}}
2355   \file{rmaa.ins}{\from{rmaa.dtx}{ins}}
2356   \file{rmaacite.sty}{\from{rmaa.dtx}{rmaacite}}
2357   \file{adshtml.sty}{\from{rmaa.dtx}{adshtml-style}}
2358   \file{ADS.tex}{\from{rmaa.dtx}{ads-container}}
2359 }

```

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).

```

2360 \generate{\nopreamble\nopostamble%
2361   \file{Makefile}{\from{rmaa.dtx}{makefile}}
2362   \file{adshtml.perl}{\from{rmaa.dtx}{adshtml-perl}}
2363   \file{makeads.sh}{\from{rmaa.dtx}{ads-shell-script}}
2364   \file{sample.latex2html-init}{\from{rmaa.dtx}{latex2html-init}}
2365 }
2366
2367 %% Local Variables:
2368 %% mode: LaTeX
2369 %% mode: Font-lock
2370 %% End:
2371 \</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.

```

2372 \<{*rmaacite}
2373 \def\bibitem[#1<#2>]#3{\par\hangindent=1.5em\hangafter=1
2374   \if@filesw
2375     {\def\protect##1{\string ##1\space}
2376      \immediate\write\@auxout{\string\lbibcite{#3}{#1}{#2}}}
2377   \fi}
2378 \@redefinebibitem % what it says

```

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

```

2379 \def\lbibcite#1#2#3{\global\@namedef{b@#1}{#2}
2380   \global\@namedef{by@#1}{#3}}
2381
2382 \def\@bcite#1#2{({#1\if@tempswa , #2\fi})}
2383 \def\@pcite#1#2{#1\if@tempswa , #2\fi}

```

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

```

2384 \def\@brcite{\ ( )}
2385 \def\@ebrcite{}
2386 \def\@fmttop#1{\@fmtcite[\csname #1\endcsname]}
2387 \def\@citex[#1]#2{%
2388   %% \if@filesw\immediate\write\@auxout{\string\citation{#2}}\fi
2389   %% WJH added 16 Jan 2002
2390   \@for\@citeb:=#2\do{%
2391     \edef\@citeb{\expandafter\@firstofone\@citeb:\articlename}%

```

```

2392 \if@filesw\immediate\write\@auxout{\string\citation{\@citeb}}\fi}%
2393 %% to here
2394 \def\@citea{}%
2395 \@cite{\@for\@citeb:=#2\do
2396   {%
2397     \edef\@citeb{\expandafter\@firstofone\@citeb:\articlename}%
2398     \@citea\def\@citea{;\ } \@ifundefined
2399       {b@\@citeb}{{\bf ?}}\@warning {Citation '\@citeb' on page \thepage \space undefined}}%
2400     {\csname b@\@citeb\endcsname\@citebro\csname by@\@citeb\endcsname\@citebrc}}}%
2401   {\#1}}
2402
2403 \def\cite{\@ifnextchar [{\let\@citebro=\space
2404   \let\@citebrc=\relax
2405   \let\@cite=\@bcite\@tempswatrue\@citex}
2406   {\let\@citebro=\space
2407     \let\@citebrc=\relax
2408     \let\@cite=\@bcite\@tempswafalse\@citex[]}]
2409 \def\pcite{\@ifnextchar [{\let\@citebro=\space
2410   \let\@citebrc=\relax
2411   \let\@cite=\@pcite\@tempswatrue\@citex}
2412   {\let\@citebro=\space
2413     \let\@citebrc=\relax
2414     \let\@cite=\@pcite\@tempswafalse\@citex[]}]
2415 \def\scite{\@ifnextchar [{\let\@citebro=\@brcite
2416   \let\@citebrc=\@ebrcite
2417   \let\@cite=\@pcite\@tempswatrue\@citex}
2418   {\let\@citebro=\@brcite
2419     \let\@citebrc=\@ebrcite
2420     \let\@cite=\@pcite\@tempswafalse\@citex[]}]
2421
2422 \renewenvironment{thebibliography}
2423   {\section*{REFERENCES}\vspace*{\afterbiblioskip}\small
2424   \if@book\RereadBiblio\fi
2425   \sloppy\clubpenalty4000\widowpenalty4000
2426   \sfcode`\.=1000\relax
2427   \setlength\parindent{\z@}\setlength\parskip{\z@}}
2428   {\relax\normalsize\@outputaddressesifnecessary}
2429 \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 \LaTeX 2HTML (see below).

```

2430 (*ads-container)
2431 %%
2432 %% Instructions:
2433 %% Edit the \input{} line below to reflect the name of your file.
2434 \documentclass{article}
2435 \usepackage[latin1]{inputenc}
2436 \usepackage{adshtml}
2437 \newcommand{\ADSfield}[2]
2438 {\%#1 #2\}
2439 %%\newcommand{\ADSvfield}[2]
2440 %%{\%#1 \begin{verbatim}#2\end{verbatim}}
2441 \newenvironment{ADSarticle}{}{\par\bigskip}
2442 \renewcommand{\bibitem}[2][\par]

```

```

2443 \setlength{\parindent}{0pt}
2444 \renewcommand{\ThisVolume}[1]{%
2445   2001, \RMAASC, 12, \oldpageref{#1:RMAAFirstPage}}
2446
2447
2448 \begin{document}
2449 \makeatletter
2450 \input{rmbooksamp.ads}
2451 \end{document}
2452 \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.

```

2453 \begin{style}
2454 %% Nothing else needs to go here now.
2455 \end{style}

```

The init file for `latex2html`.

```

2456 \begin{latex2html-init}
2457 $PDFTOCAIRO = "pdftocairo";
2458 $PDFLATEX = "pdflatex";
2459 $LATEX = "latex";
2460 $MAX_SPLIT_DEPTH = 0;
2461 $HTML_VERSION = "4.0,math";
2462 $NO_SIMPLE_MATH = 1;
2463 $ADDRESS = "<p><address><a href=\"mailto:rmaa@astro.unam.mx\">rmaa@astro.unam.mx</address></p>";
2464 $INFO = "<p>This document was created using latex2html and the rmaa latex macros</p>";
2465 $NO_NAVIGATION = 1;
2466 1;
2467 \end{latex2html-init}

```

This is the `adshtml.perl` file that is used by `LATEX2HTML`. Some bizarre `TEXy` 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.

```

2468 \begin{adshtml-perl}
2469 package main;
2470
2471 $dum = &do_cmd_makeatletter();
2472
2473 sub do_cmd_RMAA {
2474   local($_) = @_;
2475   "RMxAA" . $_;
2476 }
2477
2478 sub do_cmd_RMAASC {
2479   local($_) = @_;
2480   "RMxAASC" . $_;
2481 }
2482
2483 sub do_cmd_et al {
2484   local($_) = @_;
2485   "et al\" . $_;

```

```

2486 }
2487
2488 sub do_cmd_ibidrule {
2489     local($_) = @_;
2490     "<img src=\"foo\" alt=\"\ibidrule\">" . $_;
2491 }
2492
2493
2494 sub do_cmd_bibitem {
2495     local($_) = @_;
2496     local($key);
2497     local($opt, $dummy)=&get_next_optional_argument;
2498     $key = &missing_braces unless
2499         ((s/$next_pair_pr_rx/$key = $2; ''/eo)
2500          ||(s/$next_pair_rx/$key = $2; ''/eo));
2501     "<p>" . $_;
2502 }
2503
2504 &ignore_commands (<<_RAW_ARG_CMDS_);
2505 lowercase
2506 adjustfinalcols
2507 textsuperscript # {}
2508 newline # []
2509 thinmuskip
2510 mskip
2511 smallskip
2512 medskip
2513 bigskip
2514 hspace # {}
2515 hspacestar # {}
2516 vspace # {}
2517 vspacestar # {}
2518 mathrm
2519 _at_mathrm
2520 spacefactor
2521 discretionary
2522 unhbox
2523 voidb_at_x
2524 penalty
2525 _at_M
2526 _at_m
2527 null
2528 IeC
2529 _RAW_ARG_CMDS_
2530
2531 &process_commands_in_tex (<<_RAW_ARG_CMDS_);
2532 sun
2533 earth
2534 lesssim
2535 gtrsim
2536 sq
2537 argdeg
2538 arcmin
2539 arcsec
2540 fd
2541 fh
2542 fm

```

2543 fs
2544 fdg
2545 farcm
2546 farcs
2547 fp
2548 micron
2549 la
2550 ga
2551 case # {} # {}
2552 slantfrac # {} # {}
2553 onehalf
2554 onethird
2555 twothirds
2556 onequarter
2557 threequarters
2558 ubvr
2559 ub
2560 bv
2561 vr
2562 ur
2563 aj
2564 araa
2565 apj
2566 apjl
2567 apjs
2568 ao
2569 apss
2570 aap
2571 aapr
2572 aaps
2573 azh
2574 baas
2575 jrasc
2576 memras
2577 mnras
2578 pra
2579 prb
2580 prc
2581 prd
2582 pre
2583 prl
2584 pasp
2585 pasj
2586 qjras
2587 skytel
2588 solphys
2589 sovast
2590 ssr
2591 zap
2592 nat
2593 iaucirc
2594 aplett
2595 apspr
2596 bain
2597 fcp
2598 gca
2599 grl


```

2600 jcp
2601 jgr
2602 jqsrt
2603 memsai
2604 nphysa
2605 physrep
2606 physscr
2607 planss
2608 procsapie
2609 _RAW_ARG_CMDS_
2610
2611 l;                                     # This must be the last line
2612 </adshtml-perl>

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

2613 <*ads-shell-script>
2614 #! /bin/sh
2615 if [ -z $1 ]; then
2616     echo "Usage: $0 basename"
2617     exit
2618 fi
2619 BASENAME=$1
2620 ADSBASENAME=${BASENAME}_ads
2621 AUXFILE=$BASENAME.aux
2622 TMPFILE=tmp.$$
2623
2624
2625 echo "Generating $ADSBASENAME.tex"
2626
2627 # For some reason, must double-up \\ to \\\ but not \ to \\ - odd!
2628 cat > $ADSBASENAME.tex <<EOF
2629 %% PLEASE DO NOT EDIT THIS FILE!  It is generated automatically from
2630 %% the script makeads.sh.  Any hand-edited changes will be lost
2631 %%
2632 \documentclass{article}
2633 \usepackage[latin1]{inputenc}
2634 \usepackage{html}
2635 \usepackage{adshtml}
2636 \newcommand{\ADSfield}[2]{\%#1 #2\\}
2637 \newenvironment{ADSarticle}{}{\par\bigskip}
2638 \setlength{\parindent}{0pt}
2639 \newcounter{istage}
2640 \renewcommand{\ion}[2]{\setcounter{istage}{#2}#1 \Roman{istage}}
2641 \begin{document}
2642 \makeatletter
2643 EOF
2644 echo >> $ADSBASENAME.tex "\input{$BASENAME.ads2}"
2645 echo >> $ADSBASENAME.tex "\end{document}"
2646
2647
2648
2649 echo "Generating $ADSBASENAME.sed"
2650
2651 # Find type of journal
2652 grep '\documentclass\[.*proceedings.*\]' $BASENAME.tex >/dev/null \
2653     && JOURNAL='RMxAC' \

```

```

2654      || JOURNAL='RMxAA'
2655
2656 # Find the year and volume number
2657 YEAR=`grep '\SetYear' $BASENAME.tex | sed 's/.*\SetYear{(.*)}.*\/1/'`
2658 VOLUME=`grep '\SetVolume' $BASENAME.tex | sed 's/.*\SetVolume{(.*)}.*\/1/'`
2659
2660 # Generate an auxilliary sed script
2661 cat > $TMPFILE <<EOF
2662 s|\\\\\\newlabel{(.*) :RMAAFirstPage}{(.*){(.*)}}|s|\\\\\\\\\\ThisVolume{\\1}/$YEAR, RMxAC, $VOL
2663 EOF
2664
2665 # Now go through the .aux file, looking for \\newlabels and use the sed
2666 # script just generated in order to make another sed script, one that
2667 # will replace \\ThisVolume{LABEL} with the correct reference
2668 grep '^\\newlabel{.*:RMAAFirstPage}' $AUXFILE \
2669 | sed -f $TMPFILE > $ADSBASENAME.sed && rm $TMPFILE
2670
2671 # Append a further sed command to get rid of \@, since redefining
2672 # it in _ads.tex didn't work
2673 echo >> $ADSBASENAME.sed 's/\\\\\\@//g'
2674
2675 echo "Generating $BASENAME.ads2 from $ADSBASENAME.sed and $BASENAME.ads"
2676
2677 # Apply this to the .ads file, generating the .ads2 file, which is included
2678 # by the _ads.tex file.
2679 sed -f $ADSBASENAME.sed $BASENAME.ads > $BASENAME.ads2
2680
2681 echo "Generating $ADSBASENAME.txt from $ADSBASENAME.tex and $BASENAME.ads2"
2682
2683 # Now run latex2html on the _ads.tex file
2684 latex2html -no_navigation -info 0 -address 0 -html_version 4.0,math $ADSBASENAME
2685
2686 # Then, convert to utf8 with lynx and tidy it up a bit
2687 lynx --justify=off --width=100 --dump --nolist --display_charset=utf-8 \
2688     $ADSBASENAME/$ADSBASENAME.html | cut -c4- \
2689     | sed 's/ibidrule/\\ibidrule/g' > $ADSBASENAME.txt
2690 (/ads-shell-script)

```

5 Epilogue

Err, that's it ...

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Change History

0.0	General: So bored today, decided to rewrite RMAA LaTeX macros from scratch 2	perfect) Added proceedings option Added onecolumn/twocolumn options (orthogonal to journal/proceedings) 2	
0.1	General: Just about working - still missing Fig/Tab/Refs 2	0.7	General: Increased spacing between sections in single column styles. Suppressed floats at bottom of pages (didn't work though) 2
0.2	General: All basic functionality present, I think 2	1.0	General: Now does a whole book - lots of stuff tidied up 2
0.3	General: Better mechanism for alternative affiliations Added 'guide' option for user guide . . . 2	1.1	General: Added manuscript option, corrected bugs 2
0.4	General: Minor stylistic changes . . . 2	1.2	General: Added \plate command 2
0.5	General: Added \fulladdresses and \adjustfinalcols (just about working) 2	1.3	General: Corrected \figcaption to do the caption formatting right Corrected font size of sec headings in front matter 2
0.6	General: Tweaked \adjustfinalcols (still not		

1.4	General: Added copyright and license info (GPL)	2			
1.5	General: Eliminated superscripts from titles in TOC and index . . .	2	2.1		
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 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			
1.8	General: Fixed bug in last page label with <code>\suppressfulladdresses</code> . .	2	2.2beta	General: Fixed bug whereby <code>twocolumn</code> option was not passed through to book class. Finally sorted out the "label on last page" issue.	2
			2.2beta10	General: Fixed <code>\secnumdepth</code> for <code>\book</code> style.	33
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	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
				Made <code>twocol</code> and <code>newstyle</code> the default for proceedings.	3
			2.2beta12	<code>\@keywordheader:</code> <code>\addkeyword</code> New user interface for keywords.	15
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		2.2beta13	<code>\@keywordheader:</code> <code>\addkeyword</code> Improved behaviour with <code>.ads</code> file. Use <code>\ADS@sanitize</code> to change definitions of ' ' and <code>\ion</code>	15
			3.05	General: Added <code>natbib</code> option	3
				If the <code>natbib</code> option is used, then set things up so that <code>natbib's</code>	

version of the bibliography is identical to the standard one. . . .	4	is requested, so that the rmaacite package will work. This means that you can't use rmaacite and natbib in the same volume.	39
thebibliography: Removed the \beforebibliostkip and \afterbibliostkip commands, since they cause unwanted vertical space in some instances.	38	3.16 \@kwtwidth: Added extra vertical space between authors and accepted date.	30
3.06 General: Natbib option turned on permanently	3	General: Added \Color command for doing photometric colors. . .	55
3.07 General: Added proof option	3	3.17 appendices: Added appendices environment that does the right thing.	34
3.08 \indexauthor: Remerged changes from 3.06 that got dropped from 3.07 after a synchronization disaster. Basically, the accentless optional argument to \indexauthor. Must add the macro directories to my unison set-up to stop this sort of thing from happening.	19	3.18 General: trying out doctex mode . .	3
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	3.19 General: Changes for Silvia - remove addresses from end, new abstract style	2
3.10 General: Set large values for \hbadness, \vbadness, \hfuzz, \vfuzz. To reduce amount of stuff that gets written to the terminal every time you compile something. . .	11	3.21 General: Changes for Silvia - abstracts are now shipped out to ADS.	2
3.11 General: Moved the \articlename to after the key for consistency with the new natbib stuff.	60	3.22 General: Allow proceedings articles to have received/accepted dates	2
3.12 General: Added option to have title page for each session. Turn it on with \SessionTitlePages. .	44	3.23 \@keywordheader: \addkeyword now signals a compilation error if the author tries to add more than 6 keywords.	15
3.14 General: Option to turn off natbib .	3	\MSextramargin: Reduce baselinestretch in manuscript style to 1.2. No longer use raggedright for manuscript. . . .	10
rmaabib: Reinstalled old definition of \bibitem for the case where the nonatbib option		General: Full addresses are now automatically suppressed for proceedings style.	3
		Manuscript is now 10 pt instead of 12pt	3
		Manuscript is now on by default.	3
		Now allow Bibtex to work properly	4
		3.24 \@keywordheader: kwdcounter is now reset in	

\@begofarticlehook to prevent error in book style . . .	15	\ORCIDiD: Add mechanism for giving ORCID iD links	20
\MSextramargin: Further reduction of baselinestretch in manuscript style to 1.1 since we now have wider margins. . .	10	\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
Split manuscript's extra margin into separate horizontal and vertical parts.	10	\ps@rmaafirstpage: Change to three-line header with copyright info and DOI.	13
General: Added user access to the macro version and date via \rmVersion and \rmDate . . .	2	General: Change abstract to appear before resumen. Change RevMexAA to RMxAA for consistency with ADS.	2
New option boldkeywords that does the keywords in the old ugly way. Now off by default. . .	3	Fix for issue where breaking hyperlink across pages gave an error.	5
3.25		Fix the at-sign substitution so that it only eliminates \@ and does not mess with email addresses.	65
General: Change \newcommand tp \def when setting \bibfont. This allows it to work with all versions of natbib.	4	Make hyperref and etoolbox into hard requirements, since we now use them extensively. . .	5
Updated copyright year.	4	Make sure that lynx writes utf-8 output instead of latin-1.	65
Updated email and web addresses to crya.unam.mx. . .	4	Reorganize folder layout so that hardly anything is in the top level. That way, things are clearer on github.	57
3.26		appendix: Added appendix environment for case where there is only one section.	35
\@kwtwidth: Add extra label to review articles	30		
General: New option for review articles	3		
4.0			
\ADS@doi: Save DOI for ADS . . .	23		
\ADS@dumpdata: Write all author affiliations for ADS	26		
\DOI: New user command \DOI to typeset DOI in the header of first page and add it to ADS info.	20		