

The ejpecp class*

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1 Introduction

The *ejpecp* L^AT_EX 2_ε class is designed for the typesetting of articles for the mathematical research periodicals Electronic Journal or Probability (EJP) and Electronic Communications in Probability (ECP).

2 Usage

This class works only with the pdf_latex engine. See the sample file for its usage.

3 Implementation

```
1 %% We declare and handle our class options
2 \DeclareOption{EJP}{%
3   \makeatletter
4   \newcommand{\@EJP}{}
5   \newcommand{\@JOURNAL}{EJP}
6   \newcommand{\@JOURNALA}{Electron. J. Probab.}
7   \newcommand{\@JOURNALL}{Electronic Journal of Probability}
8   \newcommand{\@ISSN}{1083-6489}
9   \newcommand{\@URL}{ejp.ejpecp.org}
10  \makeatother
11 }
12 \DeclareOption{ECP}{%
13   \makeatletter
14   \newcommand{\@ECP}{}
15   \newcommand{\@JOURNAL}{ECP}
16   \newcommand{\@JOURNALA}{Electron. Commun. Probab.}
17   \newcommand{\@JOURNALL}{Electronic Communications in Probability}
18   \newcommand{\@ISSN}{1083-589X}
19   \newcommand{\@URL}{ecp.ejpecp.org}
20   \makeatother
21 }
22 \DeclareOption{NODS}{% asks to avoid renaming \mathbb into \mathds
23   \makeatletter
24   \newcommand{\@NODS}{}
25   \makeatother
26 }
27 \DeclareOption{draft}{%
28   \PassOptionsToClass{draft}{article}
29 }
30 \DeclareOption{final}{%
31   \PassOptionsToClass{final}{article}
32 }
33 \DeclareOption*{%
34   \PackageWarning{ejpecp}{Unknown option \CurrentOption}%
35 }
```

*.dtx ejpecp file v. v0.57721 dated 2012/01/09.

```

36 %\ExecuteOptions{EJP}
37 \ProcessOptions\relax
38 %% We use the standard article class
39 \LoadClass[a4paper,10pt,twoside]{article}
40 %% Packages and their options
41 \RequirePackage[pdftex]{graphicx}
42 \DeclareGraphicsExtensions{.pdf,.PDF,.eps,.EPS,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}
43 \RequirePackage{lastpage}
44 \RequirePackage{amsmath,amsfonts,amssymb,amsthm,latexsym,dsfont}
45 \RequirePackage{geometry}
46 \geometry{a4paper,portrait,left=4.5cm,right=2.5cm,top=3.5cm,bottom=3.5cm}
47 %\RequirePackage{charter} % Ph. Carmona
48 \RequirePackage{bera} % beware that the logo is sensitive to default font change
49 \RequirePackage[pdftex,pagebackref=false]{hyperref}
50 \hypersetup{colorlinks=false}
51 \hypersetup{pdfborder=0}
52 % Colored borders off due to ugly large rectangle in first page of ECP
53 % (this is due to the \pageref{LastPage} in headings which produces a link)
54 %\hypersetup{pdfborder=0 0 0.5}
55 %\hypersetup{linkbordercolor=0.0 0.9 0.9}
56 %\hypersetup{urlbordercolor =0.0 0.9 0.9}
57 %\hypersetup{citebordercolor=0.0 0.9 0.9}
58 \hypersetup{pdfcreator=pdflatex engine with ejpecp class}
59 \hypersetup{pdfstartview={FitH}}
60 %%% Macros et Environments
61 %% General macros
62 \makeatletter%
63 \newcommand{\@TITLE}{FIXME!}
64 \newcommand{\@SHORTTITLE}{FIXME!}
65 \newcommand{\@KEYWORDS}{FIXME!}
66 \newcommand{\@AMSSUBJ}{FIXME!}
67 \newcommand{\@ABSTRACT}{FIXME!}
68 \newcommand{\@VOLUME}{0}
69 \newcommand{\@PAPERNUM}{0}
70 \newcommand{\@YEAR}{2012}
71 \newcommand{\@PAGESTART}{1}
72 \newcommand{\@PAGEEND}{\pageref{LastPage}} % using lastpage package
73 \newcommand{\@SUBMITTED}{FIXME!}
74 \newcommand{\@ACCEPTED}{FIXME!}
75 \newcommand{\@TITLE}[1]{\renewcommand{\@TITLE}{#1}}
76 \newcommand{\@SHORTTITLE}[1]{\renewcommand{\@SHORTTITLE}{#1}}
77 \newcommand{\@AUTHORS}[1]{\author{#1}}
78 \newcommand{\@KEYWORDS}[1]{\renewcommand{\@KEYWORDS}{#1}}
79 \newcommand{\@AMSSUBJ}[1]{\renewcommand{\@AMSSUBJ}{#1}}
80 \newcommand{\@AMSSUBJSECONDARY}[1]{\gdef\@AMSSUBJSECONDARY{#1}}
81 \newcommand{\@ABSTRACT}[1]{\renewcommand{\@ABSTRACT}{#1}}
82 \newcommand{\@VOLUME}[1]{\renewcommand{\@VOLUME}{#1}}
83 \newcommand{\@PAPERNUM}[1]{\renewcommand{\@PAPERNUM}{#1}}
84 \newcommand{\@YEAR}[1]{\renewcommand{\@YEAR}{#1}}
85 \newcommand{\@PAGESTART}[1]{\renewcommand{\@PAGESTART}{#1}} % unused
86 \newcommand{\@PAGEEND}[1]{\renewcommand{\@PAGEEND}{#1}} % unused
87 \newcommand{\@SUBMITTED}[1]{\renewcommand{\@SUBMITTED}{#1}}
88 \newcommand{\@ACCEPTED}[1]{\renewcommand{\@ACCEPTED}{#1}}
89 \newcommand{\@DOI}[1]{\gdef\@DOI{10.1214/\@JOURNAL.#1}}
90 \newcommand{\@ARXIVID}[1]{\gdef\@ARXIVID{#1}}
91 \newcommand{\@ACKNO}[1]{\noindent\textbf{Acknowledgments.} #1}
92 \newcommand{\@EMAIL}[1]{E-mail: ~\texttt{\href{mailto:#1}{#1}}}
93 \makeatother
94 %% Logos
95 \makeatletter
96 \newcommand{\@EJPLOGO}{% designed by KB.
97 % This version is for bera 10pt (depends on the font via "em" and "ex")
98 \centerline {%

```

```

99     \hbox {%
100     %\vrule height -0.4 pt depth 0.8 pt width 26.5 em\space %
101     \vrule height -0.4 pt depth 0.8 pt width 27.7 em\space %
102     %\kern -26.5 em\space %
103     \kern -27.8 em\space %
104     \raise 0.03ex \hbox {\bf E}\space %
105     \raise 0.06ex \hbox {l}\space %
106     \raise .13ex \hbox {e}\space %
107     \raise .24ex \hbox {c}\space %
108     \raise .45ex \hbox {t}\space %
109     \raise .78ex \hbox {r}\space %
110     \raise 1.31ex \hbox {o}\space %
111     \raise 2.08ex \hbox {n}\space %
112     \raise 3.14ex \hbox {i}\space %
113     \raise 4.53ex \hbox {c}\space %
114     \kern 1em\space %
115     \raise 8.15ex \hbox {\bf J}\space %
116     \raise 10.15ex \hbox {o}\space %
117     \raise 12.04ex \hbox {u}\space %
118     \raise 13.60ex \hbox {r}\space %
119     \raise 14.64ex \hbox {n}\space %
120     \kern .3 em\space %
121     \vrule depth 0.8pt height 14.5ex \space % %BEST!
122     \kern -.3em\space %
123     \raise 15ex \hbox {a}\space %
124     \raise 14.64ex \hbox {l}\space %
125     \kern 1em\space %
126     \raise 12.04ex \hbox {o}\space %
127     \raise 10.15ex \hbox {f}\space %
128     \kern 1em\space %
129     \raise 6.23ex \hbox {\bf P}\space %
130     \raise 4.53ex \hbox {r}\space %
131     \raise 3.14ex \hbox {o}\space %
132     \raise 2.08ex \hbox {b}\space %
133     \raise 1.31ex \hbox {a}\space %
134     \raise .78ex \hbox {b}\space %
135     \raise .45ex \hbox {i}\space %
136     \raise .24ex \hbox {l}\space %
137     \raise .13ex \hbox {i}\space %
138     \raise .06ex \hbox {t}\space %
139     \raise .03ex \hbox {y}}%
140 }%
141 }%
142 }%EJPLOGO
143 \newcommand{\@ECPLOGO}{% designed when Ren\`e Carmona was in charge of ECP
144 \raisebox{0.3cm}{\parbox[t]{1.3in}{\noindent\rule{1.3in}{1.6pt}}\
145 \textbf{ ELECTRONIC}\
146 \textbf{ COMMUNICATIONS}\
147 \textbf{ in PROBABILITY}\
148 \rule[.08in]{1.3in}{1.6pt}}}}
149 }%ECPLOGO
150 \makeatother
151 %% Macro handling the first page
152 \makeatletter
153 \newcommand{\FIRSTPAGE}{%
154 \setcounter{page}{\@PAGESTART}%
155 \title{\small%
156 \ifx\@EJP\undefined\else%
157 \@EJPLOGO
158 \bigskip
159 \centerline{\@JOURNALA\ \textbf{\@VOLUME} (\@YEAR),\ %
160 no. \@PAPERNUM, \,\@PAGESTART--\@PAGEEND.} %
161 \centerline{ISSN:\ \texttt{\href{http://\@URL/}{\@ISSN}} %

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```

162 \ifx\@DOI\undefined\else%
163 \ DOI: \texttt{\href{http://dx.doi.org/\@DOI}{\@DOI}}%
164 \fi} %
165 \bigskip
166 \bigskip
167 {\Large\bfseries\@TITLE}%\ifx\@THANKS\undefined\else\thanks{\@THANKS}\fi
168 \fi%EJP
169 \ifx\@ECP\undefined\else%
170 \parbox[t]{9cm}{%
171 \@JOURNALA\ \textbf{\@VOLUME} (\@YEAR), %
172 no. \@PAPERNUM, \@PAGESTART--\@PAGEEND.\@ %
173 \ifx\@DOI\undefined\else%
174 \ DOI: \texttt{\href{http://dx.doi.org/\@DOI}{\@DOI}}%
175 \fi \ \ %
176 ISSN:\ \texttt{\href{http://\@URL/}{\@ISSN}}%
177 }%
178 \hfill
179 \@ECPLOGO\
180 \bigskip
181 \bigskip
182 {\Large\@TITLE}%\ifx\@THANKS\undefined\else\thanks{\@THANKS}\fi
183 \fi%ECP
184 } % end title
185 \date{}%
186 \maketitle\thispagestyle{empty}%
187 \begin{abstract}%
188 \noindent%
189 \@ABSTRACT\@ [1em]%
190 {\footnotesize\newlength{\@DH}\setlength{\@DH}{-.2em}%
191 \textbf{Keywords: }%
192 \@KEYWORDS.\@ [\@DH]%
193 \textbf{AMS 2010 Subject Classification: }%
194 \ifx\@AMSSUBJSECONDARY\undefined
195 \@AMSSUBJ.
196 \else
197 Primary \@AMSSUBJ, Secondary \@AMSSUBJSECONDARY.
198 \fi\@ [0.5em]
199 Submitted to \@JOURNAL\ on \@SUBMITTED, %
200 final version accepted on \@ACCEPTED.\@ [\@DH]%
201 \ifx\@ARXIVID\undefined\else%
202 Supersedes %
203 \texttt{\href{http://arXiv.org/abs/\@ARXIVID}{arXiv:\@ARXIVID}}.%
204 \fi%
205 }%footnotesize
206 \end{abstract}
207
208 \smallskip
209
210 }%END-FIRSTPAGE
211 \makeatother
212 %% Bibliography
213 \makeatletter
214 \def\@MRExtract#1 #2!{#1} % thanks, Martin!
215 \newcommand{\MR}[1]{% we need to strip the "(...)"
216 \xdef\@MRSTRIP{\@MRExtract#1 !}%
217 \href{http://www.ams.org/mathscinet-getitem?mr=\@MRSTRIP}{MR-\@MRSTRIP}}
218 \makeatother
219 \newcommand{\ARXIV}[1]{\href{http://arXiv.org/abs/#1}{arXiv:#1}}
220 \makeatletter
221 \renewenvironment{thebibliography}[1]{%
222 \section*{\refname
223 \@mkboth{\MakeUppercase\refname}{\MakeUppercase\refname}}%
224 \list{\@biblabel{\@arabic\c@enumiv}}{%

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```

225 \small%
226 \setlength{\labelwidth}{0em}%
227 \setlength{\labelsep}{0.4em}%
228 \setlength{\leftmargin}{\labelwidth}%
229 \addtolength{\leftmargin}{\labelsep}%
230 \setlength{\itemsep}{-.25em}%
231 \@openbib@code
232 \usecounter{enumiv}%
233 \let\p@enumiv\@empty
234 \renewcommand\theenumiv{\@arabic\c@enumiv}}%
235 \sloppy
236 \clubpenalty4000
237 \@clubpenalty \clubpenalty
238 \widowpenalty4000%
239 \sfcode'\.\@m}{%
240 \def\@noitemerr{%
241 \@latex@warning{Empty 'thebibliography' environment}}%
242 \endlist}
243 \makeatother
244 %% Theorem styles
245 \newtheoremstyle{ejpecpbodyit}% name % cf. thmtest.tex of AMSLaTeX
246 {3pt}% Space above
247 {3pt}% Space below
248 {\itshape}% Body font
249 {}% Indent amount (empty = no indent,
250 % \parindent = para indent)
251 {\bfseries\sffamily}% Thm head font
252 {.%} Punctuation after thm head
253 { }% Space after thm head: " " = normal interword space;
254 % \newline = linebreak
255 {}% Thm head spec (can be left empty, meaning 'normal')
256 \newtheoremstyle{ejpecpbodyrm}% name % cf. thmtest.tex of AMSLaTeX
257 {3pt}% Space above
258 {3pt}% Space below
259 {}% Body font
260 {}% Indent amount (empty = no indent,
261 % \parindent = para indent)
262 {\bfseries\sffamily}% Thm head font
263 {.%} Punctuation after thm head
264 { }% Space after thm head: " " = normal interword space;
265 % \newline = linebreak
266 {}% Thm head spec (can be left empty, meaning 'normal')
267 %%
268 \theoremstyle{ejpecpbodyit}
269 \newtheorem{theorem}{Theorem}[section]%
270 \newtheorem{corollary}[theorem]{Corollary}%
271 \newtheorem{proposition}[theorem]{Proposition}%
272 \newtheorem{lemma}[theorem]{Lemma}%
273 \newtheorem{definition}[theorem]{Definition}%
274 \newtheorem{fact}[theorem]{Fact}%
275 \newtheorem{notation}[theorem]{Notation}%
276 \newtheorem{hypothesis}[theorem]{Hypothesis}%
277 \newtheorem{heuristics}[theorem]{Heuristics}%
278 \newtheorem{conjecture}[theorem]{Conjecture}%
279 \theoremstyle{ejpecpbodyrm}%
280 \newtheorem{example}[theorem]{Example}%
281 \newtheorem{exercise}[theorem]{Exercise}%
282 \newtheorem{problem}[theorem]{Problem}%
283 \newtheorem{remark}[theorem]{Remark}%
284 %%% Commands to be executed before \begin{document}
285 %% Numbering
286 \numberwithin{equation}{section}
287 %% Itemize and enumerate for bera

```

```

288 \makeatletter
289 \newcommand{\@reduceitemsep}{\addtolength{\itemsep}{-0.5\baselineskip}}
290 \let\OLD@itemize\itemize
291 \renewcommand\itemize{\OLD@itemize\@reduceitemsep}
292 \let\OLD@enumerate\enumerate
293 \renewcommand\enumerate{\OLD@enumerate\@reduceitemsep}
294 \makeatother
295 %% Replace \mathbb by \mathds except if we require the contrary
296 \makeatletter
297 \ifx\@NODS\undefined%
298 \let\realmathbb=\mathbb
299 \let\mathbb=\mathds
300 \else%
301 \fi
302 \makeatother
303 %% Headings
304 \makeatletter
305 \renewcommand{\@evenfoot}
306 {\small\normalfont%
307 \newcommand{\@ARTICLEBLOB}{\@JOURNALA\normalfont\ %
308 \textbf{\@VOLUME}\, (\@YEAR),\ %
309 no. \@PAPERNUM, \, \@PAGESTART--\@PAGEEND.}
310 \href{http://dx.doi.org/\@DOI}{\@ARTICLEBLOB}\ %
311 \hfil\href{http://\@URL}{\@URL}}
312 \renewcommand{\@oddfoot}{\@evenfoot}
313 \renewcommand{\@evenhead}
314 {\small\upshape {\thepage}\ \hfil\@SHORTTITLE\hfil}
315 \renewcommand{\@oddfhead}
316 {\small\hfil\@SHORTTITLE\hfil \upshape\ \thepage}
317 \makeatother
318 %% smaller sections titles
319 \makeatletter
320 \renewcommand{\section}{\@startsection%
321 {section}% % name
322 {1}% % level
323 {0em}% % indent
324 {\baselineskip}% % before skip
325 {0.5\baselineskip}% % after skip
326 {\normalfont\large\bfseries}}% % style
327 \renewcommand{\subsection}{\@startsection%
328 {subsection}% % name
329 {2}% % level
330 {0em}% % indent
331 {\baselineskip}% % before skip
332 {0.25\baselineskip}% % after skip
333 {\normalfont\bfseries}}% % style
334 }
335 \makeatother
336 %% Macros
337 %%% Commands to be executed just after \begin{document}
338 \AtBeginDocument{%
339 \FIRSTPAGE%
340 }
341 %%% Commands to be executed just before \end{document}
342 \AtEndDocument{\vfill}

```