

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 of 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   \newcommand{\@EJP}{}
4   \newcommand{\@JOURNAL}{EJP}
5   \newcommand{\@JOURNALA}{Electron. J. Probab.}
6   \newcommand{\@JOURNALL}{Electronic Journal of Probability}
7   \newcommand{\@ISSN}{1083-6489}
8   \newcommand{\@URL}{www.imstat.org/ejp}
9 }
10 \DeclareOption{ECP}{%
11   \newcommand{\@ECP}{}
12   \newcommand{\@JOURNAL}{ECP}
13   \newcommand{\@JOURNALA}{Electron. Commun. Probab.}
14   \newcommand{\@JOURNALL}{Electronic Communications in Probability}
15   \newcommand{\@ISSN}{1083-589X}
16   \newcommand{\@URL}{www.imstat.org/ecp}
17 }
18 \DeclareOption{NOAMS}{% prevents the load of AMS packages
19   \newcommand{\@NOAMS}{}
20 }
21 \DeclareOption{NODS}{% asks to avoid renaming \mathbb into \mathds
22   \newcommand{\@NODS}{}
23 }
24 \DeclareOption{PSTRICKS}{% pstricks and pspicture.
25   % File must be compiled with "latex --shell-escape", then use dvipdf
26   \newcommand{\@PSTRICKS}{}
27 }
28 \DeclareOption{draft}{%
29   \PassOptionsToClass{draft}{article}
30 }
31 \DeclareOption{final}{%
32   \PassOptionsToClass{final}{article}
33 }
34 \DeclareOption*{%
35   \PackageWarning{ejpecp}{Unknown option \CurrentOption}%
```

*.dtx ejpecp file v1.4 dated 2016/04/06.

```

36 }
37 %\ExecuteOptions{EJP}
38 \ProcessOptions\relax
39 %% We use the standard article class
40 \LoadClass[a4paper,10pt,twoside]{article}
41 %% Packages and their options
42 \ifx\@PSTRICKS\undefined
43   \RequirePackage[pdftex]{graphicx}
44   \DeclareGraphicsExtensions{.pdf,.PDF,.eps,.EPS,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}
45 \else
46   \RequirePackage{graphicx}
47   \RequirePackage[pdf]{pstricks}
48   \RequirePackage{auto-pst-pdf}
49 \fi
50 \RequirePackage{mathtools}
51 \RequirePackage{fixltx2e}
52 \RequirePackage{microtype}
53 \RequirePackage{lastpage}
54 \RequirePackage{latexsym}
55 \ifx\@NODS\undefined
56   \RequirePackage{dsfont}
57 \fi
58 \ifx\@NOAMS\undefined
59   \RequirePackage{amsmath,amsfonts,amssymb,amsthm}
60 \fi
61 \RequirePackage{geometry}
62 \geometry{a4paper,portrait,left=3.5cm,right=3.5cm,top=3.5cm,bottom=3.5cm}
63 %\RequirePackage{charter} % Ph. Carmona
64 \RequirePackage{bera} % beware that the logo is sensitive to default font change
65 \ifx\@PSTRICKS\undefined
66   \RequirePackage[pdftex,pagebackref=false]{hyperref}
67 \else
68   \RequirePackage[pagebackref=false]{hyperref}
69 \fi
70 \hypersetup{pdfborder=0 0 0}
71 \hypersetup{pdfstartview={FitH}}
72 %%%% Macros et Environments
73 %% General macros
74 \newcommand{\@TITLE}{\FIXME!}
75 \newcommand{\@SHORTTITLE}{\FIXME!}
76 \newcommand{\@KEYWORDS}{\FIXME!}
77 \newcommand{\@AMSSUBJ}{\FIXME!}
78 \newcommand{\@ABSTRACT}{\FIXME!}
79 \newcommand{\@VOLUME}{0}
80 \newcommand{\@PAPERNUM}{0}
81 \newcommand{\@YEAR}{2012}
82 \newcommand{\@PAGESTART}{1}
83 \newcommand{\@PAGEEND}{\pageref{LastPage}} % using lastpage package
84 \newcommand{\@SUBMITTED}{\FIXME!}
85 \newcommand{\@ACCEPTED}{\FIXME!}
86 \newcommand{\@TITLE}[1]{\renewcommand{\@TITLE}{#1}}
87 \newcommand{\@SHORTTITLE}[1]{\renewcommand{\@SHORTTITLE}{#1}}
88 \newcommand{\@DEDICATORY}[1]{\gdef\@DEDICATORY{#1}}
89 \newcommand{\@AUTHORS}[1]{\author{#1}}
90 \newcommand{\@KEYWORDS}[1]{\renewcommand{\@KEYWORDS}{#1}}
91 \newcommand{\@AMSSUBJ}[1]{\renewcommand{\@AMSSUBJ}{#1}}
92 \newcommand{\@AMSSUBJSECONDARY}[1]{\gdef\@AMSSUBJSECONDARY{#1}}
93 \newcommand{\@ABSTRACT}[1]{\renewcommand{\@ABSTRACT}{#1}}
94 \newcommand{\@VOLUME}[1]{\renewcommand{\@VOLUME}{#1}}
95 \newcommand{\@PAPERNUM}[1]{\renewcommand{\@PAPERNUM}{#1}}
96 \newcommand{\@YEAR}[1]{\renewcommand{\@YEAR}{#1}}
97 \newcommand{\@PAGESTART}[1]{\renewcommand{\@PAGESTART}{#1}}
98 \newcommand{\@PAGEEND}[1]{\renewcommand{\@PAGEEND}{#1}}

```

```

99 \newcommand{\SUBMITTED}[1]{\renewcommand{\@SUBMITTED}{#1}}
100 \newcommand{\ACCEPTED}[1]{\renewcommand{\@ACCEPTED}{#1}}
101 \newcommand{\DOI}[1]{\gdef\@DOI{#1}}
102 \newcommand{\ARXIVID}[1]{\gdef\@ARXIVID{#1}}
103 \newcommand{\HALID}[1]{\gdef\@HALID{#1}}
104 \newcommand{\ACKNO}[1]{\noindent\textbf{Acknowledgments.} #1}
105 \def\EMAIL#1{E-mail:~\texttt{\href{mailto:#1}{\nolinkurl{#1}}}}
106 \newcommand{\BEMAIL}[1]{\newline\hspace*{1.8em}\EMAIL{#1}} % useful in ftnotes
107 %% Logos
108 \newcommand{\@EJPLG0}{% designed by KB.
109 % This version is for bera 10pt (depends on the font via "em" and "ex")
110 \centerline{%
111 \hbox{%
112 \vrule height -0.4 pt depth 0.8 pt width 27.7 em\space
113 \kern -27.8 em\space
114 \raise 0.03ex \hbox {\bf E}\space
115 \raise 0.06ex \hbox {l}\space
116 \raise .13ex \hbox {e}\space
117 \raise .24ex \hbox {c}\space
118 \raise .45ex \hbox {t}\space
119 \raise .78ex \hbox {r}\space
120 \raise 1.31ex \hbox {o}\space
121 \raise 2.08ex \hbox {n}\space
122 \raise 3.14ex \hbox {i}\space
123 \raise 4.53ex \hbox {c}\space
124 \kern 1em\space
125 \raise 8.15ex \hbox {\bf J}\space
126 \raise 10.15ex \hbox {o}\space
127 \raise 12.04ex \hbox {u}\space
128 \raise 13.60ex \hbox {r}\space
129 \raise 14.64ex \hbox {n}\space
130 \kern .3 em\space
131 \vrule depth 0.8pt height 14.5ex \space
132 \kern -.3em\space
133 \raise 15ex \hbox {a}\space
134 \raise 14.64ex \hbox {l}\space
135 \kern 1em\space
136 \raise 12.04ex \hbox {o}\space
137 \raise 10.15ex \hbox {f}\space
138 \kern 1em\space
139 \raise 6.23ex \hbox {\bf P}\space
140 \raise 4.53ex \hbox {r}\space
141 \raise 3.14ex \hbox {o}\space
142 \raise 2.08ex \hbox {b}\space
143 \raise 1.31ex \hbox {a}\space
144 \raise .78ex \hbox {b}\space
145 \raise .45ex \hbox {i}\space
146 \raise .24ex \hbox {l}\space
147 \raise .13ex \hbox {i}\space
148 \raise .06ex \hbox {t}\space
149 \raise .03ex \hbox {y}}%
150 }%
151 }%
152 }%EJPLG0
153 \newcommand{\@ECPLOG0}{% designed when Ren\’e Carmona was in charge of ECP
154 \raisebox{0.3cm}{\parbox[t]{1.3in}{\noindent\rule{1.3in}{1.6pt}}\
155 \textbf{ ELECTRONIC}\
156 \textbf{ COMMUNICATIONS}\
157 \textbf{ in PROBABILITY}\
158 \rule{.08in}{1.3in}}}%
159 }%ECPLOG0
160 %% Macro handling the first page
161 \newcommand{\FIRSTPAGE}{%

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162 \setcounter{page}{\@PAGESTART}%
163 \title{\small
164 \ifx\@EJP\undefined\else
165 \@EJPLOGO
166 \bigskip
167 \centerline{\@JOURNALA\ \textbf{\@VOLUME} (\@YEAR),\
168 no. \@PAPERNUM, \,\@PAGESTART--\@PAGEEND.}%
169 \centerline{ISSN:\ \texttt{\href{http://\@URL/}{\@ISSN}} \%
170 \ifx\@DOI\undefined\else
171 \ DOI: \texttt{\href{http://dx.doi.org/\@DOI}{\@DOI}}}%
172 \fi}%
173 \bigskip
174 \bigskip
175 {\Large\bfseries\@TITLE}%
176 \fi
177 \ifx\@ECP\undefined
178 \else
179 \parbox[t]{9cm}{%
180 \@JOURNALA\ \textbf{\@VOLUME} (\@YEAR),
181 no. \@PAPERNUM, \@PAGESTART--\@PAGEEND.\@
182 \ifx\@DOI\undefined
183 \else
184 \ DOI: \texttt{\href{http://dx.doi.org/\@DOI}{\@DOI}}}%
185 \fi \\\
186 ISSN:\ \texttt{\href{http://\@URL/}{\@ISSN}}}%
187 }%
188 \hfill
189 \@ECPLOGO\\
190 \bigskip
191 \bigskip
192 {\Large\@TITLE}%
193 \fi
194 }% end title
195 \date{%
196 \ifx\@DEDICATORY\undefined
197 \else
198 \noindent
199 \emph{\small\sffamily\@DEDICATORY}%
200 \fi}%
201 \maketitle\thispagestyle{empty}%
202 \begin{abstract}%
203 \noindent
204 \@ABSTRACT\par\vskip 1em\relax
205 {\footnotesize
206 \noindent\textbf{Keywords: }\@KEYWORDS.\par
207 \noindent\textbf{AMS MSC 2010: }%
208 \ifx\@AMSSUBJSECONDARY\undefined
209 \noindent
210 \@AMSSUBJ.\par
211 \else
212 \noindent
213 Primary \@AMSSUBJ, Secondary \@AMSSUBJSECONDARY.\par
214 \fi
215 \noindent
216 Submitted to \@JOURNAL\ on \@SUBMITTED,
217 final version accepted on \@ACCEPTED.\par
218 \ifx\@ARXIVID\undefined
219 \else
220 \noindent
221 Supersedes
222 \texttt{\href{http://arXiv.org/abs/\@ARXIVID}{arXiv:\@ARXIVID}}.}%
223 \fi\par
224 \ifx\@HALID\undefined

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225     \else
226     \noindent
227     Supersedes
228     \texttt{\href{http://hal.archives-ouvertes.fr/\@HALID}{HAL:\@HALID}}.%
229     \fi\par
230 }%footnotesize
231 \end{abstract}
232
233 \smallskip
234
235 }%END-FIRSTPAGE
236 %% Macro setting the PDF title
237 \newcommand{\PDFFIELDS}{%
238   \hypersetup{%
239     pdftitle={\@JOURNAL\ \@VOLUME\ (\@YEAR), no. \@PAPERNUM, DOI: \@DOI}}%
240   \hypersetup{pdfkeywords={\@KEYWORDS}}%
241   \hypersetup{pdfproducer={\@JOURNAL\ Managing Editor http://\@URL/}}%
242   \hypersetup{pdfcreator={LaTeX with ejpecp.cls v1.4}}%
243   \hypersetup{pdfsubject={Probability Theory}}%
244   \hypersetup{pdfauthor={Please see http://dx.doi.org/\@DOI}}%
245 }%END-PDFFIELDS
246
247 %% Bibliography
248 \def\@MRExtract#1 #2!{#1} % thanks, Martin!
249 \newcommand{\MR}[1]{% we need to strip the "(...)"
250   \xdef\@MRSTRIP{\@MRExtract#1 !}%
251   \href{http://www.ams.org/mathscinet-getitem?mr=\@MRSTRIP}{MR-\@MRSTRIP}}
252 \newcommand{\ARXIV}[1]{\href{http://arXiv.org/abs/#1}{arXiv:#1}}
253 \renewenvironment{thebibliography}[1]
254   {%
255     \section*{\refname
256       \@mkboth{\MakeUppercase\refname}{\MakeUppercase\refname}}%
257     \phantomsection
258     \addcontentsline{toc}{section}{\refname}%
259     \list{\@biblabel{\@arabic\c@enumiv}}%
260     {\settowidth\labelwidth{\@biblabel{#1}}%
261       \small
262       \setlength{\labelsep}{0.4em}%
263       \setlength{\leftmargin}{\labelwidth}%
264       \addtolength{\leftmargin}{\labelsep}%
265       \setlength{\itemsep}{-.25em}%
266       \@openbib@code
267       \usecounter{enumiv}%
268       \let\p@enumiv\empty
269       \renewcommand\theenumiv{\@arabic\c@enumiv}}%
270     \sloppy\clubpenalty4000\@clubpenalty\clubpenalty\widowpenalty4000%
271     \sfcode'\.\@m
272   }{%
273     \def\@noitemerr{%
274       \@latex@warning{Empty 'thebibliography' environment}}%
275     \endlist
276   }
277 %% Theorem styles
278 \ifx\@NOAMS\undefined
279   \newtheoremstyle{ejpecpbodyit}% name % cf. thmtest.tex of AMSLaTeX
280     {3pt} % Space above
281     {3pt} % Space below
282     {\itshape} % Body font
283     {} % Indent amount (empty = no indent,
284       % \parindent = para indent)
285     {\bfseries\sffamily} % Thm head font
286     {.} % Punctuation after thm head
287     { } % Space after thm head: " " = normal interword space;

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288                                     % \newline = linebreak
289     {}                               % Thm head spec (can be left empty, meaning 'normal')
290     \newtheoremstyle{ejpecpbodyrm}% name % cf. thmtest.tex of AMSLaTeX
291     {3pt}                             % Space above
292     {3pt}                             % Space below
293     {}                               % Body font
294     {}                               % Indent amount (empty = no indent,
295                                     % \parindent = para indent)
296     {\bfseries\sffamily}              % Thm head font
297     {.}                               % Punctuation after thm head
298     { }                               % Space after thm head: " " = normal interword space;
299                                     % \newline = linebreak
300     {}                               % Thm head spec (can be left empty, meaning 'normal')
301 \fi
302 %%
303 \ifx\@NOAMS\undefined
304     \theoremstyle{ejpecpbodyit}
305 \fi
306 \newtheorem{theorem}{Theorem}[section]
307 \newtheorem{assumptions}[theorem]{Assumptions}
308 \newtheorem{assumption}[theorem]{Assumption}
309 \newtheorem{claim}[theorem]{Claim}
310 \newtheorem{condition}[theorem]{Condition}
311 \newtheorem{conjecture}[theorem]{Conjecture}
312 \newtheorem{corollary}[theorem]{Corollary}
313 \newtheorem{definitions}[theorem]{Definitions}
314 \newtheorem{definition}[theorem]{Definition}
315 \newtheorem{facts}[theorem]{Facts}
316 \newtheorem{fact}[theorem]{Fact}
317 \newtheorem{heuristics}[theorem]{Heuristics}
318 \newtheorem{hypothesis}[theorem]{Hypothesis}
319 \newtheorem{hypotheses}[theorem]{Hypotheses}
320 \newtheorem{lemma}[theorem]{Lemma}
321 \newtheorem{notations}[theorem]{Notations}
322 \newtheorem{notation}[theorem]{Notation}
323 \newtheorem{proposition}[theorem]{Proposition}
324 \ifx\@NOAMS\undefined
325     \theoremstyle{ejpecpbodyrm}
326 \fi
327 \newtheorem{example}[theorem]{Example}
328 \newtheorem{exercise}[theorem]{Exercise}
329 \newtheorem{problem}[theorem]{Problem}
330 \newtheorem{question}[theorem]{Question}
331 \newtheorem{remark}[theorem]{Remark}
332 %% Numbering
333 \ifx\@NOAMS\undefined
334     \numberwithin{equation}{section}
335 \fi
336 %% Itemize and enumerate for bera
337 \newcommand{\@reduceitemsep}{\addtolength{\itemsep}{-0.5\baselineskip}}
338 \let\OLD@itemize\itemize
339 \renewcommand\itemize{\OLD@itemize\@reduceitemsep}
340 \let\OLD@enumerate\enumerate
341 \renewcommand\enumerate{\OLD@enumerate\@reduceitemsep}
342 %% Replace \mathbb by \mathds except if we require the contrary
343 \ifx\@NODS\undefined
344     \let\realmathbb=\mathbb
345     \let\mathbb=\mathds
346 \fi
347 %% Headings
348 \newcommand{\@HBLob}{%
349     \href{http://dx.doi.org/\@DOI}%
350     {\@JOURNAL\ \textbf{\@VOLUME}\, (\@YEAR),\ paper \@PAPERNUM.}}

```

```

351 \renewcommand{\@evenfoot}{%
352   \normalfont\footnotesize\@HLOB\hfil
353   \small\raisebox{-1em}{Page \thepage/\@PAGEEND}\hfil
354   \footnotesize\href{http://\@URL/}{http://\@URL/}}
355 \renewcommand{\@oddfoot}{\@evenfoot}
356 \renewcommand{\@evenhead}{\hfil\@SHORTTITLE\hfil}
357 \renewcommand{\@oddhead}{\@evenhead}
358 %% smaller sections titles
359 \renewcommand{\section}{%
360   \@startsection
361     {section}
362     {1}
363     {0em}
364     {\baselineskip}
365     {0.5\baselineskip}
366     {\normalfont\large\bfseries}}
367 \renewcommand{\subsection}{%
368   \@startsection
369     {subsection}
370     {2}
371     {0em}
372     {\baselineskip}
373     {0.25\baselineskip}
374     {\normalfont\bfseries}}
375 \IfFileExists{ejpecp-hook.sty}{\RequirePackage{ejpecp-hook}}{}
376 %% Macros
377 \AtBeginDocument{\FIRSTPAGE\PDFFIELDS}
378 \AtEndDocument{\vfill}

```