The ejpecp class*

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1   Introduction

The *ejpecp* LaTeX 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 pdflatex 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}%
```

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*.dtx ejpecp file v1.3 dated 2016/02/23.

```latex
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 \IfFileExists{ejpecp-hook.sty}{\RequirePackage{ejpecp-hook}}{}
66 \ifx\@PSTRICKS\undefined
67   \RequirePackage[pdftex,pagebackref=false]{hyperref}
68 \else
69   \RequirePackage[pagebackref=false]{hyperref}
70 \fi
71 \hypersetup{pdfborder=0 0 0}
72 \hypersetup{pdfstartview={FitH}}
73 %%%% Macros et Environments
74 %% General macros
75 \newcommand{\@TITLE}{FIXME!}
76 \newcommand{\@SHORTTITLE}{FIXME!}
77 \newcommand{\@KEYWORDS}{FIXME!}
78 \newcommand{\@AMSSUBJ}{FIXME!}
79 \newcommand{\@ABSTRACT}{FIXME!}
80 \newcommand{\@VOLUME}{0}
81 \newcommand{\@PAPERNUM}{0}
82 \newcommand{\@YEAR}{2012}
83 \newcommand{\@PAGESTART}{1}
84 \newcommand{\@PAGEEND}{\pageref{LastPage}}  % using lastpage package
85 \newcommand{\@SUBMITTED}{FIXME!}
86 \newcommand{\@ACCEPTED}{FIXME!}
87 \newcommand{\TITLE}[1]{\renewcommand{\@TITLE}{#1}}
88 \newcommand{\SHORTTITLE}[1]{\renewcommand{\@SHORTTITLE}{#1}}
89 \newcommand{\DEDICATORY}[1]{\gdef\@DEDICATORY{#1}}
90 \newcommand{\AUTHORS}[1]{\author{#1}}
91 \newcommand{\KEYWORDS}[1]{\renewcommand{\@KEYWORDS}{#1}}
92 \newcommand{\AMSSUBJ}[1]{\renewcommand{\@AMSSUBJ}{#1}}
93 \newcommand{\AMSSUBJSECONDARY}[1]{\gdef\@AMSSUBJSECONDARY{#1}}
94 \newcommand{\ABSTRACT}[1]{\renewcommand{\@ABSTRACT}{#1}}
95 \newcommand{\VOLUME}[1]{\renewcommand{\@VOLUME}{#1}}
96 \newcommand{\PAPERNUM}[1]{\renewcommand{\@PAPERNUM}{#1}}
97 \newcommand{\YEAR}[1]{\renewcommand{\@YEAR}{#1}}
98 \newcommand{\PAGESTART}[1]{\renewcommand{\@PAGESTART}{#1}}
```

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

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

```
225      \ifx\@HALID\undefined
226      \else
227        \noindent
228        Supersedes
229        \texttt{\href{http://hal.archives-ouvertes.fr/\@HALID}{HAL:\@HALID}}.%
230      \fi\par
231    }%footnotesize
232  \end{abstract}
233
234  \smallskip
235
236  }%END-FIRSTPAGE
237 %% Macro setting the PDF title
238 \newcommand{\PDFFIELDS}{%
239  \hypersetup{%
240    pdftitle={\@JOURNALA\ \@VOLUME\ (\@YEAR), no. \@PAPERNUM, DOI: \@DOI}}%
241  \hypersetup{pdfkeywords={\@KEYWORDS}}%
242  \hypersetup{pdfproducer={\@JOURNAL\ Managing Editor http://\@URL/}}%
243  \hypersetup{pdfcreator={LaTeX with ejpecp.cls v1.0}}%
244  \hypersetup{pdfsubject={Probability Theory}}%
245  \hypersetup{pdfauthor={Please see http://dx.doi.org/\@DOI}}%
246  }%END-PDFFIELDS
247
248 %% Bibliography
249 \def\@MORExtract#1 #2!{#1}     % thanks, Martin!
250 \newcommand{\MR}[1]{% we need to strip the "(...)"
251  \xdef\@MRSTRIP{\@MORExtract#1 !}%
252  \href{http://www.ams.org/mathscinet-getitem?mr=\@MRSTRIP}{MR-\@MRSTRIP}}
253 \newcommand{\ARXIV}[1]{\href{http://arXiv.org/abs/#1}{arXiv:#1}}
254 \renewenvironment{thebibliography}[1]
255  {%
256    \section*{\refname
257      \@mkboth{\MakeUppercase\refname}{\MakeUppercase\refname}}%
258    \phantomsection
259    \addcontentsline{toc}{section}{\refname}%
260    \list{\@biblabel{\@arabic\c@enumiv}}%
261    {\settowidth\labelwidth{\@biblabel{#1}}%
262      \small
263      \setlength{\labelsep}{0.4em}%
264      \setlength{\leftmargin}{\labelwidth}%
265      \addtolength{\leftmargin}{\labelsep}%
266      \setlength{\itemsep}{-.25em}%
267      \@openbib@code
268      \usecounter{enumiv}%
269      \let\p@enumiv\@empty
270      \renewcommand\theenumiv{\@arabic\c@enumiv}}%
271    \sloppy\clubpenalty4000\@clubpenalty\clubpenalty\widowpenalty4000%
272    \sfcode`\.\@m
273  }{%
274    \def\@noitemerr{%
275      \@latex@warning{Empty `thebibliography' environment}}%
276    \endlist
277  }
278 %% Theorem styles
279 \ifx\@NOAMS\undefined
280 \newtheoremstyle{ejpecpbodyit}% name % cf. thmtest.tex of AMSLaTeX
281      {3pt}                      % Space above
282      {3pt}                      % Space below
283      {\itshape}                 % Body font
284      {}                         % Indent amount (empty = no indent,
285                                 %        \parindent = para indent)
286      {\bfseries\sffamily}       % Thm head font
287      {.}                        % Punctuation after thm head
```

5

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

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