The ejpecp class[*][†]

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1 Introduction

The *ejpecp* LaTeX 2ε 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*{%
```

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[*]class for EJP and ECP journals v1.7 dated 2019/04/04.
[†]Current maintainer of class file is VTeX, Lithuania. Please send all queries to `latex-support@vtex.lt`.

```latex
35   \PackageWarning{ejpecp}{Unknown option '\CurrentOption'}%
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 \RequirePackage{graphicx}
43 \ifx\@PSTRICKS\undefined
44   \DeclareGraphicsExtensions{.pdf,.PDF,.eps,.EPS,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}
45 \else
46   \RequirePackage[pdf]{pstricks}
47   \RequirePackage{auto-pst-pdf}
48 \fi
49 \RequirePackage{mathtools}
50 \RequirePackage{microtype}
51 \RequirePackage{lastpage}
52 \RequirePackage{latexsym}
53 \ifx\@NODS\undefined
54   \RequirePackage{dsfont}
55 \fi
56 \ifx\@NOAMS\undefined
57   \RequirePackage{amsmath,amsfonts,amssymb,amsthm}
58 \fi
59 \RequirePackage{geometry}
60 \geometry{a4paper,portrait,left=3.5cm,right=3.5cm,top=3.5cm,bottom=3.5cm}
61 %\RequirePackage{charter} % Ph. Carmona
62 \RequirePackage{bera} % beware that the logo is sensitive to default font change
63 \RequirePackage{hyperref}
64 \hypersetup{
65   pagebackref=false,
66   pdfborder={0 0 0},
67   pdfstartview={FitH},
68   hypertexnames=false,
69   breaklinks,
70 }
71 \def\UrlFont{}
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 \let\FIRSTNAMES\@firstofone
91 \let\SURNAME\@firstofone
92 \newcommand{\KEYWORDS}[1]{\renewcommand{\@KEYWORDS}{#1}}
93 \newcommand{\AMSSUBJ}[1]{\renewcommand{\@AMSSUBJ}{#1}}
94 \newcommand{\AMSSUBJSECONDARY}[1]{\gdef\@AMSSUBJSECONDARY{#1}}
95 \newcommand{\ABSTRACT}[1]{\renewcommand{\@ABSTRACT}{#1}}
96 \newcommand{\VOLUME}[1]{\renewcommand{\@VOLUME}{#1}}
97 \newcommand{\PAPERNUM}[1]{\renewcommand{\@PAPERNUM}{#1}}
```

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

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

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

```
287     {3pt}                   % Space above
288     {3pt}                   % Space below
289     {\itshape}              % Body font
290     {}                      % Indent amount (empty = no indent,
291                             %        \parindent = para indent)
292     {\bfseries\sffamily}    % Thm head font
293     {.}                     % Punctuation after thm head
294     { }                     % Space after thm head: " " = normal interword space;
295                             %                       \newline = linebreak
296     {}                      % Thm head spec (can be left empty, meaning 'normal')
297     \newtheoremstyle{ejpecpbodyrm}% name % cf. thmtest.tex of AMSLaTeX
298     {3pt}                   % Space above
299     {3pt}                   % Space below
300     {}                      % Body font
301     {}                      % Indent amount (empty = no indent,
302                             %        \parindent = para indent)
303     {\bfseries\sffamily}    % Thm head font
304     {.}                     % Punctuation after thm head
305     { }                     % Space after thm head: " " = normal interword space;
306                             %                       \newline = linebreak
307     {}                      % Thm head spec (can be left empty, meaning 'normal')
308 \fi
309 %%
310 \ifx\@NOAMS\undefined
311   \theoremstyle{ejpecpbodyit}
312 \fi
313 \newtheorem{theorem}{Theorem}[section]
314 \newtheorem{assumptions}[theorem]{Assumptions}
315 \newtheorem{assumption}[theorem]{Assumption}
316 \newtheorem{claim}[theorem]{Claim}
317 \newtheorem{condition}[theorem]{Condition}
318 \newtheorem{conjecture}[theorem]{Conjecture}
319 \newtheorem{corollary}[theorem]{Corollary}
320 \newtheorem{definitions}[theorem]{Definitions}
321 \newtheorem{definition}[theorem]{Definition}
322 \newtheorem{facts}[theorem]{Facts}
323 \newtheorem{fact}[theorem]{Fact}
324 \newtheorem{heuristics}[theorem]{Heuristics}
325 \newtheorem{hypothesis}[theorem]{Hypothesis}
326 \newtheorem{hypotheses}[theorem]{Hypotheses}
327 \newtheorem{lemma}[theorem]{Lemma}
328 \newtheorem{notations}[theorem]{Notations}
329 \newtheorem{notation}[theorem]{Notation}
330 \newtheorem{proposition}[theorem]{Proposition}
331 \ifx\@NOAMS\undefined
332   \theoremstyle{ejpecpbodyrm}
333 \fi
334 \newtheorem{example}[theorem]{Example}
335 \newtheorem{exercise}[theorem]{Exercise}
336 \newtheorem{problem}[theorem]{Problem}
337 \newtheorem{question}[theorem]{Question}
338 \newtheorem{remark}[theorem]{Remark}
339 %% Numbering
340 \ifx\@NOAMS\undefined
341   \numberwithin{equation}{section}
342 \fi
343 %% Itemize and enumerate for bera
344 \newcommand{\@reduceitemsep}{\addtolength{\itemsep}{-0.5\baselineskip}}
345 \let\OLD@itemize\itemize
346 \renewcommand\itemize{\OLD@itemize\@reduceitemsep}
347 \let\OLD@enumerate\enumerate
348 \renewcommand\enumerate{\OLD@enumerate\@reduceitemsep}
349 %% Replace \mathbb by \mathds except if we require the contrary
```

```latex
350 \ifx\@NODS\undefined
351   \let\realmathbb=\mathbb
352   \let\mathbb=\mathds
353 \fi
354 %% Headings
355 \newcommand{\@HBLOB}{%
356   \href{\@doiprefix\@DOI}%
357     {\@JOURNAL\ \textbf{\@VOLUME}\, (\@YEAR),\ paper \@PAPERNUM.}}
358 \renewcommand{\@evenfoot}{%
359   \normalfont\footnotesize\@HBLOB\hfil
360   \small\raisebox{-1em}{Page \thepage/\@PAGEEND}\hfil
361   \footnotesize\href{http://\@URL/}{http://\@URL/}}
362 \renewcommand{\@oddfoot}{\@evenfoot}
363 \renewcommand{\@evenhead}{\hfil\@SHORTTITLE\hfil}
364 \renewcommand{\@oddhead}{\@evenhead}
365 %% smaller sections titles
366 \renewcommand{\section}{%
367   \@startsection
368     {section}
369     {1}
370     {0em}
371     {\baselineskip}
372     {0.5\baselineskip}
373     {\normalfont\large\bfseries}}
374 \renewcommand{\subsection}{%
375   \@startsection
376     {subsection}
377     {2}
378     {0em}
379     {\baselineskip}
380     {0.25\baselineskip}
381     {\normalfont\bfseries}}
382 \RequirePackage{afterpackage}
383 \AfterPackage{natbib}
384 {%
385   \def\bibcleanup{\vskip-\lastskip\vskip10\p@}%
386   \renewcommand{\bibfont}{\small}%
387   \newlength{\standard@parsep}%
388   \newlength{\standard@itemsep}%
389   \setlength{\standard@parsep}{4.0pt plus 2.0pt minus 1.0pt}%
390   \setlength{\standard@itemsep}{-2.02498pt}%
391   \setlength{\bibsep}{\standard@parsep}%
392   \addtolength{\bibsep}{\standard@itemsep}%
393   \renewcommand\NAT@bibsetnum[1]%
394   {%
395     \settowidth\labelwidth{\@biblabel{#1}}%
396     \setlength{\leftmargin}{\labelwidth}\addtolength{\leftmargin}{\labelsep}%
397     \setlength{\labelsep}{3pt}%
398     \setlength{\itemsep}{\bibsep}\setlength{\parsep}{\z@}%
399     \ifNAT@openbib
400     \addtolength{\leftmargin}{\bibindent}%
401     \setlength{\itemindent}{-\bibindent}%
402     \setlength{\listparindent}{\itemindent}%
403     \setlength{\parsep}{0pt}%
404     \fi
405   }%
406 }%
407 \InputIfFileExists{ejpecp.cfg}{}{}
408 %% Macros
409 \AtBeginDocument{\FIRSTPAGE\PDFFIELDS}
410 \AtEndDocument{\vfill}
411 \endinput
412 %%
```

```
413 %% End of file 'ejpecp.cls'.
414 %% Macros
415 \AtBeginDocument{\FIRSTPAGE\PDFFIELDS}
416 \AtEndDocument{\vfill}
```