The ejpecp class*†

K. Burdzy D. Chafaï

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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}{%
    \newcommand{\@EJP}{}
    \newcommand{\@JOURNAL}{EJP}
4
    \newcommand{\@JOURNALA}{Electron. J. Probab.}
5
    \newcommand{\@JOURNALL}{Electronic Journal of Probability}
6
    \newcommand{\@ISSN}{1083-6489}
8
    \newcommand{\@URL}{www.imstat.org/ejp}
9
    \newcommand{\@FULLURL}{https://imstat.org/journals-and-publications/electronic-journal-of-probability/}
10
11 \DeclareOption{ECP}{%
12
    \newcommand{\@ECP}{}
    \newcommand{\@JOURNAL}{ECP}
13
    \newcommand{\@JOURNALA}{Electron. Commun. Probab.}
14
    \newcommand{\@JOURNALL}{Electronic Communications in Probability}
15
    \label{lossn} $$\operatorname{\command}(\CISSN}_{1083-589X}$
16
    \newcommand{\@URL}{www.imstat.org/ecp}
17
    \newcommand{\@FULLURL}{https://imstat.org/journals-and-publications/electronic-communications-in-probabilit
18
19
20 \DeclareOption{NOAMS}{% prevents the load of AMS packages
    \newcommand{\@NOAMS}{}
    }
23 \DeclareOption{NODS}{% asks to avoid renaming \mathbb into \mathds
    \newcommand{\@NODS}{}
24
    }
25
26 \DeclareOption{PSTRICKS}{% pstricks and pspicture.
    % File must be compiled with "latex --shell-escape", then use dvipdf
    \newcommand{\@PSTRICKS}{}
28
29
30 \DeclareOption{draft}{%
    \PassOptionsToClass{draft}{article}
33 \DeclareOption{final}{%
    \PassOptionsToClass{final}{article}
```

^{*}class for EJP and ECP journals v1.8.3 dated 2020/08/26.

[†]Current maintainer of class file is VTeX, Lithuania. Please send all queries to latex-support@vtex.lt.

```
}
35
36 \DeclareOption*{%
    \PackageWarning{ejpecp}{Unknown option \CurrentOption}%
39 %\ExecuteOptions{EJP}
40 \ProcessOptions\relax
41 %% We use the standard article class
42 \LoadClass[a4paper,10pt,twoside]{article}
43 %% Packages and their options
44 \RequirePackage{graphicx}
45 \ifx\@PSTRICKS\undefined
    \DeclareGraphicsExtensions{.pdf,.PDF,.eps,.EPS,.png,.PNG,.jpg,.JPG,.jpeg,.JPEG}
47 \else
    \RequirePackage[pdf]{pstricks}
48
    \RequirePackage{auto-pst-pdf}
49
50 \fi
51 \RequirePackage{mathtools}
52 \RequirePackage{microtype}
53 \RequirePackage{lastpage}
54 \RequirePackage{latexsym}
55 \ifx\ONODS\undefined
56 \RequirePackage{dsfont}
57\fi
58 \ifx\@NOAMS\undefined
  \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 \RequirePackage{hyperref}
66 \hypersetup{
67 pagebackref=false,
68 pdfborder={0 0 0},
69 pdfstartview={FitH},
70 hypertexnames=false,
   breaklinks,
71
72 }
73 \def\UrlFont{}
74 %%% Macros et Environments
75 %% General macros
76 \newcommand{\@TITLE}{FIXME!}
77 \newcommand{\@SHORTTITLE}{FIXME!}
78 \newcommand{\@KEYWORDS}{FIXME!}
79 \newcommand{\@AMSSUBJ}{FIXME!}
80 \newcommand{\@ABSTRACT}{FIXME!}
81 \newcommand{\@VOLUME}{0}
82 \newcommand{\@PAPERNUM}{0}
83 \mbox{ } \mbox{newcommand} \mbox{\em QYEAR} \mbox{\em 2012}
84 \newcommand{\@PAGESTART}{1}
85 \newcommand{\@PAGEEND}{\pageref{LastPage}} % using lastpage package
86 \newcommand{\@SUBMITTED}{FIXME!}
87 \newcommand{\@ACCEPTED}{FIXME!}
88 \label{title} [1] {\tt venewcommand \{\t TITLE\} [1] } \\
89 \newcommand{\SHORTTITLE}[1]{\renewcommand{\@SHORTTITLE}{#1}}
90 \newcommand{\DEDICATORY}[1]{\gdef\@DEDICATORY{#1}}
91 \newcommand{\AUTHORS}[1]{\author{#1}}
92 \let\FIRSTNAMES\@firstofone
93 \let\SURNAME\@firstofone
94 \newcommand{\KEYWORDS}[1]{\renewcommand{\@KEYWORDS}{#1}}
95 \newcommand{\AMSSUBJ}[1]{\renewcommand{\@AMSSUBJ}{#1}}
96 \newcommand{\AMSSUBJSECONDARY}[1]{\gdef\@AMSSUBJSECONDARY{#1}}
97 \newcommand{\ABSTRACT}[1]{\renewcommand{\QABSTRACT}{#1}}
```

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

```
\textbf{ in PROBABILITY}\\
161
162
                     \rule[.08in]{1.3in}{1.6pt}}}%
163
           }%ECPLOGO
164 \def\@doiprefix{https://doi.org/}
165 \end{area} $$165 
166 \def\msc@url{https://ams.org/mathscinet/msc/msc2020.html}
167 %% make title long
168 \renewcommand\title[1]{\gdef\@title{#1}}
169 %% Macro handling the first page
170 \def\papernum@name{no.}
171 \newcommand{\FIRSTPAGE}{%
           \setcounter{page}{\@PAGESTART}%
172
            \title{\small
173
                \ifx\@EJP\undefined\else
174
                     \@EJPLOGO
175
                     \bigskip
176
                     \centerline{\@JOURNALA\ \textbf{\@VOLUME} (\@YEAR),\
177
                          \papernum@name\ \@PAPERNUM, \,\@PAGESTART--\@PAGEEND.}%
178
                     \centerline{ISSN:\ \texttt{\href{\@FULLURL}{\@ISSN}} %
179
                          \ifx\@DOI\undefined\else
180
                               \ \printdoi
181
                         fi}%
182
183
                     \bigskip
184
                     \bigskip
                     {\Large\bfseries\@TITLE\par}%
185
186
                \ifx\@ECP\undefined
187
                \else
188
                     \parbox[t]{9cm}{%
189
                          \@JOURNALA\ \textbf{\@VOLUME} (\@YEAR),
190
                          \papernum@name\ \@PAPERNUM, \@PAGESTART--\@PAGEEND.\\
191
                          \ifx\@DOI\undefined
192
193
                          \else
                              \\printdoi
194
                          \fi \\
195
                         ISSN:\ \texttt{\href{\@FULLURL}{\@ISSN}}%
196
                         }%
197
                     \hfill
198
                     \@ECPLOGO\\
199
200
                     \bigskip
201
                     \bigskip
202
                     {\Large\@TITLE\par}%
203
                \fi
204
                }% end title
205
            \date{%
                \ifx\@DEDICATORY\undefined
206
207
                \else
                     \noindent
208
                     \emph{\small\sffamily\@DEDICATORY}%
209
210
            \maketitle\thispagestyle{empty}%
211
            \begin{abstract}%
212
                \noindent
213
214
                \@ABSTRACT\par\vskip 1em\relax
215
                {\footnotesize
216
                     \noindent\textbf{Keywords: }\@KEYWORDS.\par
                     \noindent\href\msc@url{\textbf{MSC2020 subject classifications: }}%
217
                     \ifx\@AMSSUBJSECONDARY\undefined
218
                          \noindent
219
                          \@AMSSUBJ.\par
220
221
                     \else
222
                          \noindent
                          Primary \@AMSSUBJ, Secondary \@AMSSUBJSECONDARY.\par
```

```
224
         \fi
225
         \noindent
         Submitted to \@JOURNAL\ on \@SUBMITTED,
226
227
         final version accepted on \@ACCEPTED.\par
         \ifx\@ARXIVID\undefined
228
         \else
229
           \noindent
230
231
           Supersedes
           \texttt{\href{https://arXiv.org/abs/\@ARXIVID}{arXiv:\@ARXIVID}}.%
232
233
         \ifx\@HALID\undefined
234
235
         \else
236
           \noindent
237
           Supersedes
           \texttt{\href{https://hal.archives-ouvertes.fr/\@HALID}{HAL:\@HALID}}.%
238
         \fi\par
239
       }%footnotesize
240
     \end{abstract}
241
242
     \smallskip
243
244
     }%END-FIRSTPAGE
246 %% Macro setting the PDF title
247 \newcommand{\PDFFIELDS}{\%
     \hypersetup{%
248
       pdftitle={\@JOURNALA\ \@VOLUME\ (\@YEAR), \papernum@name\ \@PAPERNUM, \@doiprefix\@DOI}}%
249
     \hypersetup{pdfkeywords={\@KEYWORDS}}%
250
     \hypersetup{pdfproducer={\@JOURNAL\ Managing Editor https://\@URL}}%
251
     \hypersetup{pdfcreator={LaTeX with ejpecp.cls v1.8.2}}%
252
     \hypersetup{pdfsubject={Probability Theory}}%
253
     \hypersetup{pdfauthor={Please see \@doiprefix\@DOI}}%
254
     }%END-PDFFIELDS
255
256
257 %% Bibliography
258 \def\@MRExtract#1 #2!{#1}
                                  % thanks, Martin!
259 \newcommand{\MR}[1]{\% we need to strip the "(...)"
     \xdef\@MRSTRIP{\@MRExtract#1 !}%
260
     \href{https://mathscinet.ams.org/mathscinet-getitem?mr=\@MRSTRIP}{MR-\@MRSTRIP}}
262 \newcommand{\ARXIV}[1]{\href{https://arXiv.org/abs/#1}{arXiv:#1}}
263 \def\bibliography@size{\small}
264 \renewenvironment{thebibliography}[1]
265
266
       \section*{\refname
267
         \Omkboth{\MakeUppercase\refname}{\MakeUppercase\refname}}%
268
       \phantomsection
       \addcontentsline{toc}{section}{\refname}%
269
       \list{\@biblabel{\@arabic\c@enumiv}}%
270
       {\settowidth\labelwidth{\@biblabel{#1}}%
271
         \bibliography@size
272
         \setlength{\labelsep}{0.4em}%
273
274
         \setlength{\leftmargin}{\labelwidth}%
         \addtolength{\leftmargin}{\labelsep}%
275
         \setlength{\itemsep}{-.25em}%
276
277
         \@openbib@code
278
         \usecounter{enumiv}%
279
         \let\p@enumiv\@empty
         \renewcommand\theenumiv{\@arabic\c@enumiv}}%
280
       \sloppy\clubpenalty4000\@clubpenalty\clubpenalty\widowpenalty4000%
281
       \sfcode'\.\@m
282
283
     }{%
       \def\@noitemerr{%
284
         \@latex@warning{Empty 'thebibliography' environment}}%
285
       \endlist
```

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

```
350 \renewcommand\itemize{\OLD@itemize\@reduceitemsep}
351 \let\OLD@enumerate\enumerate
352 \renewcommand\enumerate{\OLD@enumerate\@reduceitemsep}
353 %% Replace \mathbb by \mathds except if we require the contrary
354 \ifx\ONODS\undefined
     \let\realmathbb=\mathbb
     \let\mathbb=\mathds
356
357 \fi
358 %% Headings
359 \mbox{ \newcommand{\CHBLOB}{}}
     \href{\@doiprefix\@DOI}%
       {\@JOURNAL\ \textbf{\@VOLUME}\, (\@YEAR),\ paper \@PAPERNUM.}}
361
362 \renewcommand{\@evenfoot}{%
     \normalfont\footnotesize\@HBLOB\hfil
363
     \small\raisebox{-1em}{Page \thepage/\@PAGEEND}\hfil
364
     \footnotesize\href{\@FULLURL}{https://\@URL}}
366 \renewcommand{\@oddfoot}{\@evenfoot}
367 \renewcommand{\@evenhead}{\hfil\@SHORTTITLE\hfil}
368 \renewcommand{\@oddhead}{\@evenhead}
369 %% smaller sections titles
370 \renewcommand{\section}{%
     \@startsection
372
         {section}
         {1}
373
         {Oem}
374
         {\baselineskip}
375
         {0.5\baselineskip}
376
377
         {\normalfont\large\bfseries}}
378 \renewcommand{\subsection}{%
     \@startsection
379
         {subsection}
380
         {2}
381
382
         {0em}
         {\baselineskip}
383
         {0.25\baselineskip}
384
         {\normalfont\bfseries}}
385
386 \RequirePackage{afterpackage}
387 \AfterPackage{natbib}
388 {%
389
     \def\bibcleanup{\vskip-\lastskip\vskip10\p0}%
390
     \renewcommand{\bibfont}{\small}%
     \newlength{\standard@parsep}%
392
     \newlength{\standard@itemsep}%
     \setlength{\standard@parsep}{4.0pt plus 2.0pt minus 1.0pt}%
393
     \setlength{\standard@itemsep}{-2.02498pt}%
394
     \setlength{\bibsep}{\standard@parsep}%
395
     \addtolength{\bibsep}{\standard@itemsep}%
396
     \renewcommand\NAT@bibsetnum[1]%
397
398
     ₹%
       \settowidth\labelwidth{\@biblabel{#1}}%
399
       \setlength{\leftmargin}{\labelwidth}\addtolength{\leftmargin}{\labelsep}%
400
       \setlength{\labelsep}{3pt}%
401
       \setlength{\itemsep}{\bibsep}\setlength{\parsep}{\z@}%
402
       \ifNAT@openbib
403
404
       \addtolength{\leftmargin}{\bibindent}%
405
       \setlength{\itemindent}{-\bibindent}%
       \setlength{\listparindent}{\itemindent}%
406
       \setlength{\parsep}{0pt}%
407
408
       \fi
     }%
409
410 }%
411 \left( \frac{%}{2} \right)
412 \InputIfFileExists{ejpecp.cfg}
```

```
413 {}
414 {\def\papernum@name{article no.}}
415 %% Macros
416 \AtBeginDocument{\FIRSTPAGE\PDFFIELDS}
417 \AtEndDocument{\vfill}
418 \endinput
419 %%
420 %% End of file 'ejpecp.cls'.
421 %% Macros
422 \AtBeginDocument{\FIRSTPAGE\PDFFIELDS}
423 \AtEndDocument{\vfill}
```

Change History

v0.5		EJMS/VTEX/ProjectEuclid	1
General: Initial version	1	v1.3	
v0.57		General: Updated journal URLs and DOI	
General: Improvements, see the README file.	1	output format	1
v0.577		v1.4	
General: Improvements, see the README file.	1	General: Abstract baselineskip correction	1
v0.5772		v1.5	
General: Improvements, see the README file.	1	General: false configuration for hyperref	
v0.57721		package	1
General: Improvements, see the README file.	1	v1.6	
v0.577215		General: full url doi, package maintaining and	
General: Improvements, see the README file.	1	shorttitle info	1
v1.0		v1.7	
General: First stable version, see the README		General: merged with production version:	
file	1	fixltx2e removed, natbib setup with	
v1.1		afterpackage, etc	1
General: Corrected stable version, see the		v1.8.2	
README file	1	General: no. prefix updated and msc2020	1
v1.2		v1.8.3	
General: Transition to		General: Update URLs	1

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