Preparing FP7 EU Proposals and Reports in LATEX with euproposal.cls

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Abstract

The euproposal class supports many of the specific elements of a Framework 7 Proposal. It is optimized towards collaborative projects. The package comes with an extensive example (a fake EU proposal) that shows all elements in action.

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1 Introduction

Writing grant proposals is a collaborative effort that requires the integration of contributions from many individuals. The use of an ASCII-based format like LATEX allows to coordinate the process via a source code control system like Subversion, allowing the proposal writing team to concentrate on the contents rather than the mechanics of wrangling with text fragments and revisions.

The euproposal class extends the proposal class [Kohlhase:pplp:svn] and supports many of the specific elements of Part B of a Framework 7 Proposal. The package documentation is still preliminary, fragmented and incomplete and only dwells on the particulars of DFG proposals, so we treat [Kohlhase:pplp:svn] as a prerequisite. Please consult the example proposal propB.tex, which comes with the package and shows the usage of the class in action. It is intended as a template for your proposal, but please bear in mind that the EU guidelines may change from call to call, if in doubt, please consult the FP7 guide for proposers.¹

EdN:1

The eureporting class supports most of the specific elements of the project reports to the EC. The example report dfg/report.tex is intended as a template for your final report².

EdN:2

The euproposal and eureporting classes and the eupdata package are distributed under the terms of the LaTeX Project Public License from CTAN archives in directory macros/latex/base/lppl.txt. Either version 1.0 or, at your option, any later version. The CTAN archive always contains the latest stable version, the development version can be found at https://github.com/KWARC/LaTeX-proposal. For bug reports please use the sTeX TRAC at https://github.com/KWARC/LaTeX-proposal/issues.

2 The User Interface

In this section we will describe the functionality offered by the euproposal class along the lines of the macros and environments the class provides. Much of the functionality can better be understood by studying the functional example proposal.tex (and its dependents) that comes with the euproposal package in conjunction with the proposer's EU proposer's guidelines (we have included it as *** for convenience into the package distribution).³

EdN:3

2.1 Package Options

As usual in LaTeX, the package is loaded by \documentclass[\langle options \rangle] {euproposal}, where [\langle options \rangle] is optional and gives a comma separated list of options specified in [Kohlhase:pplp:svn]. Some versions EU proposals want non-standard numbering schemes (e.g. starting with B... since we are writing Part B.), this can be reached by giving the propB option.

2.2 Proposal Metadata and Title page

The metadata of the proposal is specified in the proposal environment, which also generates the title page and the first section of the proposal as well as the last pages of the proposal with the signatures, enclosures, and references. The proposal environment should contain all the mandatory parts of the proposal text. The proposal environment uses the following EU-specific keys to specify metadata.

callname

callid

proposal

- callname specifies the call the proposal addresses. It is usually a string of the form ICT Call 1, callid is the corresponding identifier, usually a string of the form FP7-???-200?-?. An overview over open calls can be found at http://cordis.europa.eu/fp7/dc/index.cfm
- The challenge, objective, and outcome keys specifies the specific parts in the call this proposal addresses. These are specified in the "call fiche" that can be obtained from the URL above. All of these have an identifier, which can be specified via the challengeid,

challenge objective outcome challengeid

 $^{^{1}\}mathrm{EdNote}$: say something about the proposers guide.

 $^{^2\}mathrm{EdNote}\colon$ say something about reporting

³EdNote: MK@MK do that and talk about reporting as well.

objectiveid outcomeid EdN:4 topicsaddressed coordinator

- objectiveid, and outcomeid keys.4
- topicsaddressed allows to enter free-form text instead of specifying the challenge*, objective*, and outcome* keys.
- The coordinator key gives the identifier of the proposal coordinator. The euproposal package uses the workaddress package for representation of personal metadata, see [Kohlhase:workaddress:ctan] for details.

coordinatorsite
iconrowheight

- The coordinatorsite key gives the identifier of the coordinating site (for the table).
- If given, the iconrowheight key instructs the euproposal class to make a line with the logos of the participants at the bottom of the title page, and specify their heights; 1.5cm is often a good value.

2.3 Work Packages and Work Areas

type

The type key specifies the activity type of the work package: RTD = Research and technological development (including any activities to prepare for the dissemination and/or exploitation of project results, and coordination activities); DEM = Demonstration; MGT = Management of the consortium; OTHER = Other specific activities, if applicable in this call.

2.4 Milestones and Deliverables

verif euproposal.cls adds the verif key to for specifying a means of verification that the milestone has been successful.

With this, we can generate the milestone table that is required in many EU proposals. This \milestonetablean simply be done via the \milestonetable macro. It takes a keyword argument with the keys caption caption for specifying a different caption, and the widths wname, wdeliv, and wverif that can be used to specify different widths for the name/deliverables/verification columns in the milestone wdeliv table.

wverif

2.5 Risks

In some EU proposals (e.g. FET), we need to identify risks and contingency and specify mitigation plans for them. In the euproposal we use two environments to mark them up.

risk riskcont \begin{risk}{\langle title \rangle} {\langle trob \rangle} {\langle trob \rangle} {\langle trob \rangle} \langle \langle trob \rangle} \rangle \text{makes a paragraph no a risk \langle title \rangle} with gravity \langle grav \rangle and probability \langle prob \rangle, where the body of the environment contains a description of the risk. The riskcont is a variant, where \langle title \rangle names a risk and the body is a description of the contingency plan.

2.6 Relevant Papers

\keypubs

Sometimes we want to list the relevant papers in the site descriptions. We use the biblatex package to automate this. We only need to use $\ensuremath{\mbox{keypubs}}\[\langle keys\rangle\] \{\langle refs\rangle\}\]$, where $\langle keys\rangle$ that specify what papers are selected and $\langle refs\rangle$ is a comma-separated list of bibtex keys from the bibTeX database used in the proposal.

featured

BNP:5

The papers listed in \keypubs are put into a special bibIATEXcategory featured, and can thus be excluded from the general bibliography by adding notcategory=featured to the final \printbibliography.

2.7 Reporting Infrastructure

The eureporting class gives an infrastructure for writing final reports of completed projects (see report the file finalreport.tex in the package distribution). The report environment has functionality

 $^{^4\}mathrm{EdNote}$: MK@MK: the outcomeid should key should be a list key, I am not implementing this right now, since it comes more natural when we change the class to metakeys support.

⁵NEW PART: MK@MK: This is new, and only partially implemented

analogous to the proposal environment. It takes the same metadata keys — making it easy to generate by copy/paste from the proposal — but adds the keys key can be used to specify the reference key (something like KO 2428 47-11) given to the project by EU. Note that in the case of multiple proposers, you can use multiple instances of key to specify more than one reference key.

key

ENP:5

3 Limitations and Enhancements

The euproposal is relatively early in its development, and many enhancements are conceivable. We will list them here.

1. none reported yet.

If you have other enhancements to propose or feel you can alleviate some limitation, please feel free to contact the author.

4 The Implementation

We first set up the options for the package.

In this section we describe the implementation of the functionality of the euproposal and eureporting classes and the eupdata package.

4.1 Package Options and Format Initialization

```
1 ⟨*cls⟩
 2 \newif\ifpartB\partBfalse
3 \DeclareOption{partB}{\partBtrue}
4 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{proposal}}
\label{lem:conting} $$ \operatorname{\operatorname{CurrentOption}_{reporting}} $$ on ToClass{\operatorname{\operatorname{CurrentOption}_{reporting}}} $$
7 \( cls | reporting \\ \ProcessOptions
   Then we load the packages we make use of
8 \(\clip\)\ifpartB\LoadClass[report,noRAM] \(\{\proposal\}\)\)\else\LoadClass[noRAM] \(\{\proposal\}\)\fi
9 (reporting)\LoadClass[report,noRAM]{reporting}
10 (*cls | reporting)
11 \RequirePackage{longtable}
12 \RequirePackage{eurosym}
13 \RequirePackage{wrapfig}
14 \RequirePackage{eupdata}
we want to change the numbering of figures and tables
15 \RequirePackage{chngcntr}
16 \counterwithin{figure}{subsection}
17 \counterwithin{table}{subsection}
```

4.2 Proposal Metadata and Title Page

18 (/cls | reporting)

41 (/reporting)

We extend the metadata keys from the proposal class.

```
19 (*pdata)
21 \define@key{prop@gen}{coordinatorsite}{\def\prop@gen@coordinatorsite{#1}\pdata@def{prop}{gen}{coordinator}{#1
22 \def\prop@gen@challenge{??}\def\prop@gen@challengeid{??}
23 \define@key{prop@gen}{challenge}{\def\prop@gen@challenge{#1}\pdata@def{prop}{gen}{challenge}{#1}}
24 \define@key{prop@gen}{challengeid}{\def\prop@gen@challengeid{#1}\pdata@def{prop}{gen}{challengeid}{#1}}
26 \define@key{prop@gen}{objective}{\def\prop@gen@objective{#1}\pdata@def{prop}{gen}{objective}{#1}}
27 \define@key{prop@gen}{objectiveid}{\def\prop@gen@objectiveid{#1}\pdata@def{prop}{gen}{objectiveid}{#1}}
28 \def\prop@gen@outcome{??}\def\prop@gen@outcomeid{??}
29 \define@key{prop@gen}{outcome}{\def\prop@gen@outcome{#1}\pdata@def{prop}{gen}{outcome}{#1}}
30 \define@key{prop@gen}{outcomeid}{\def\prop@gen@outcomeid{#1}\pdata@def{prop}{gen}{outcomeid}{#1}}
31 \define@key{prop@gen}{callname}{\def\prop@gen@call{#1}\pdata@def{prop}{gen}{callname}{#1}}
32 \define@key{prop@gen}{callid}{\def\prop@gen@call{#1}\pdata@def{prop}{gen}{callid}{#1}}
33 \define@key{prop@gen}{iconrowheight}{\def\prop@gen@iconrowheight{#1}}
34 \define@key{prop@gen}{topicsaddressed}{\def\prop@gen@topicsaddressed{#1}}
35 (/pdata)
  and now the ones for the final report
36 (*reporting)
37 \define@key{prop@gen}{reportperiod}{\def\prop@gen@reportperiod{#1}}
38 \define@key{prop@gen}{key}{\@dmp{key=#1}%
39 \@ifundefined{prop@gen@keys}{\xdef\prop@gen@keys{#1}}}\xdef\prop@gen@keys{\prop@gen@keys,#1}}}
40 \define@key{prop@gen}{projpapers}{\def\prop@gen@projpapers{#1}}
```

and the default values, these will be used, if the author does not specify something better. If the propB option is given, we need to redefine some of the internal counters and table of contents mechanisms to adapt to the fact that the proposal text is just Part B.

42 (*cls)

```
43 \ifpartB
                   44 \def\thepart{\Alph{part}}
                   45 \setcounter{part}{2}
                   46 \def\thechapter{\thepart.\arabic{chapter}}
                   47 \def\numberline#1{\hb@xt@\@tempdima{#1\hfil} }
                   48 \fi
\prop@sites@table
                   49 \newcommand\prop@sites@table{\def\@@table{}
                   50 {\let\tabularnewline\relax\let\hline\relax
                   51 \@for\@I:=\prop@gen@sites\do{\xdef\@@table{\@@table\pdataref{site}\@I{number}}
                   52 \xdef\@@table{\@@table&\@nameuse{wa@institution@\@I @name}
                   53 \ifx\@I\prop@gen@coordinatorsite (coordinator)\fi}
                   54 \xdef\@@table{\@@table&\@nameuse{wa@institution@\@I @acronym}}
                   55 \xdef\@@table{\@@table&\@nameuse{wa@institution@\@I @countryshort}\tabularnewline\hline}}}
                   56 \begin{tabular}{||1|p{8cm}||1||}\hline%|
                   57 \# & Participant organisation name & Short name & Country\\hline\hline
                   58 \@@table
                   59 \end{tabular}}
   prop@proposal
                   60 \renewenvironment{prop@proposal}
                   61 {\ifgrantagreement\else
                      \thispagestyle{empty}\begin{center}
                       {\Large \prop@gen@instrument}\\[.2cm]
                       {\Large\textbf\prop@gen@callname}\\[.4cm]
                       {\LARGE \prop@gen@callid}\\[.8cm]
                       {\huge\textbf\prop@gen@title}\\[.4cm]
                       {\LARGE Acronym: {\prop@gen@acronym}}\\[2cm]
                   68 \end{center}
                   69 %{\large\prop@gen@instrument}\\
                   70 {\large\textbf{Date of Preparation: \today}}
                   71 % \ifsubmit\else\if@svninfo\if@gitinfo\\
                   72 % {\large\textbf{Revision}:
                   73 % \if@svninfo\svnInfoRevision\fi\if@gitinfo\gitAbbrevHash\fi
                   75 % \if@svninfo\svnInfoDate\fi\if@gitinfo\gitAuthorDate\fi}
                   76 % \fi\fi\fi
                   77 \\[1em]
                   78 \begin{large}
                   79 \begin{description}
                       % \item[Work program topics addressed by \pn:]
                   80
                           \@ifundefined{prop@gen@topicsaddressed}
                   81
                       %
                           {\textbf{Challenge \prop@gen@challengeid}: \prop@gen@challenge,
                   82
                   83
                           \textbf{Objective \prop@gen@objectiveid}: \prop@gen@objective,
                   84
                           \textbf{target outcome \prop@gen@outcomeid}) \prop@gen@outcome.
                           {\prop@gen@topicsaddressed}\\[1em]
                   85
                       \item[Coordinator:] \wa@ref{person}\prop@gen@coordinator{name}
                   86
                       \item[e-mail:] \wa@ref{person}\prop@gen@coordinator{email}
                   87
                       \item[tel/fax:] \wa@ref{person}\prop@gen@coordinator{worktelfax}
                   88
                         \@ifundefined{prop@gen@keywords}{}{\item[Keywords:] \prop@gen@keywords}
                   89
                       \end{description}
                   91 \end{large}
                   92 \vspace*{1em}
```

```
95 \@ifundefined{prop@gen@iconrowheight}{}
                              96 {\@for\@site:=\prop@gen@sites\do{\wa@institution@logo[height=\prop@gen@iconrowheight]\@site\qquad}}
                              97 \end{center}
                              98 \newpage
                              99 \fi% ifgrantagreement
                             100 \setcounter{tocdepth}{2}\setcounter{part}{2}}
                             101 {\newpage\printbibliography[heading=warnpubs]}
                             102 \def\prop@gen@instrument{Proposal Instrument (e.g. IP)}
                                          Site Descriptions
                              4.3
     EdN:6
                              <sup>7</sup> \begin{sitedescritpion} [\langle opt \rangle] {\meta{site}} marks up the description for the site \langle site \rangle.
sitedal Scription
                              It looks up the relevant metadata from the respective \WAinstitution declarations. The options
                             argument \langle opt \rangle is a key-value list for the keys logo (add the logo from \WAinstitution to the
                   logo
                             site description), width, height (intended dimensions of the logo), 8.
                 width
               EdN:8
                             104 \end{ata@def{sitedesc}_{\osite}_{\osite}_{\noindent{matheres}}
                             105 \end{fine} $$105 
                             106 \pdata@def{sitedesc}{\@site}{logo}{#1}}
                             107 \define@key{site@desc}{width}{\def\site@desc@width{#1}%
                             108 \pdata@def{sitedesc}{\width}{\#1}\@dmp{wd=\#1}}
                             110 \displaystyle \frac{110 \dmp{ht=#1}}{\dmp{ht=#1}}
                             111 \newenvironment{sitedescription}[2][]%
                             112 {\def\c@site{#2}% remember the site ID
                             113 \newcounter{site@#2@PM} % for the site PM
                             114 \def\site@desc@box{false}% not box unless requested
                             115 \def\site@desc@logo{false}% not logo unless requested
                             116 \def\site@desc@height{1.3cm}% default height
                             117 \def\site@desc@width{5cm}% default width
                             118 \setkeys{site@desc}{#1}% read the keys to overwrite the defaults
                             119 \ifx\@site@desc@box\@true% if we want a logo
                             120 \begin{wrapfigure}{r}{\site@desc@width}\vspace{-2.5ex}%
                             121 \begin{tabular}{|p{\site@desc@width}|}\hline\vspace{1mm}%
                             122 \ifx\@site@desc@logo\@true% if we want a logo
                             123 \wa@institution@logo[height=\site@desc@width] \{#2\}\ [1ex]%
                             124 \fi% end logo
                             \label{local-prop} $$125 \leftrightarrow f{\wa@ref{institution}{#2}{type}.\hfill \wa@ref{institution}{#2}{country}}\\\%
                             126 \small\wa@ref{institution}{#2}{streetaddress}, \wa@ref{institution}{#2}{townzip}\\\hline%
                             127 \end{tabular}\vspace{-2.5ex}%
                             128 \end{wrapfigure}%
                             129 \fi% end box
                             130 \pdata@target{site}{#2}%
                             131 {\subsubsection{\wa@ref{institution}{#2}{acronym}: % space here
                             132 {\textsc{\wa@ref{institution}{#2}{name}} (\wa@ref{institution}{#2}{countryshort}))}}}%
                             134 \renewcommand\paragraph{\@startsection{paragraph}{4}{\z@}%
                                                                                                    {0.25ex \@plus1ex \@minus.2ex}%
                             135
                             136
                                                                                                    {-1em}%
                                                                                                    {\normalfont\normalsize\bfseries}}}
                             137
                                  <sup>6</sup>EDNOTE: this functionality should probably be refactored into proposal.dtx
                                  <sup>7</sup>EDNOTE: document this above
```

93 \begin{center}

94 \prop@sites@table\vfill

⁸EdNote: more?

```
138 {\pdata@def{site}{\c@site}{reqPM}{\csname thesite@\c@site @PM\endcsname}}
                           <sup>9</sup> \begin{picv}[\langle PM \rangle] {\meta{name}} marks up the CV and metadata about a principal inves-
    participant
                                                                                                                                                                                              EdN:9
                            tigator of a site (it can only be use inside a sitedescription environment). The first argument
                            \langle PM \rangle specifies the involvement in person months: a fair estimation this PI will spend on this
                           specific project over its whole duration.
                          139 \define@key{site@part}{type}{\def\site@part@type{#1}\@dmp{type=#1}}
                          140 \end{fine} \end{
                          141 \define@key{site@part}{salary}{\def\site@part@salary{#1}}%\@dmp{\euro=#1}}
                          143 \newenvironment{participant}[2][]%
                          144 {\def\site@part@type{}\def\site@part@PM{}\def\site@part@salary{}\def\site@part@gender{}%
                          145 \setkeys{site@part}{#1}%
                          146 \ifx\site@part@PM\@empty\else\addtocounter{site@\c@site @PM}{\site@part@PM}\fi%
                          147 \paragraph*{#2\ %
                          148 (\ifx\site@part@type\@empty\else\site@part@type\fi%
                          149 \ifx\site@part@gender\@empty\else, \site@part@gender\fi%
                          150 \ifx\site@part@PM\@empty\else, \site@part@PM~PM\fi%
                          151 ) }%
                          152 \ignorespaces}
                          153 {\par\medskip}
                                       Work Packages, Work Areas, and Deliverables
                            4.4
                  wp*
                          154 \newmdenv[frametitle=Objectives] {wpobjectives}
                          155 \newmdenv[frametitle=Description] {wpdescription}
    workpackage
                          156 \renewenvironment{workpackage}[1][]
                          157 {\begin{work@package}[#1]\medskip\wpheadertable%
                          158 \addcontentsline{toc}{subsubsection}{\wp@label\wp@num: \pdataref{wp}\wp@id{title}}}
                          159 {\end{work@package}}
\wpheadertable
                          We redefine the macro that computes the default work package header table, since there are more
                            sites in a EU proposal, we do this in a tabular form as asked for in the template. We use the
                            internal counter @sites@po (sites plus one) for convenience.
                          160 \newcounter{@sitespo}\newcounter{@sitespt}
                          161 \renewcommand\wpheadertable{%
                          162 \wp@sites@efforts@lines%
                          163 \setcounter{@sitespo}{\thewp@sites@num}\addtocounter{@sitespo}{1}%
                          164 \par\noindent\begin{tabular}{||1|*{\thewp@sites@num}{c|}c|}\hline%
                          165 \multicolumn{\the@sitespo}{||1|}{\textbf{\wp@mk@title{\wp@num}: }%}  
                          166 \texttt{\pdata@target\{wp}{\pdataref\{wp\}\wp@id\{title\}\}}\}
                          167 &\textbf{Start: }\pdataref{wp}\wp@id{start}\\\hline%
                          168 \wp@sites@line\\\hline%
                          169 \wp@efforts@line\\\hline%
                          170 \end{tabular}\smallskip\par\noindent\ignorespaces}
                                       Milestones and Deliverables
                           4.5
                          We make the deliverables boxed in EU proposals, this is simple with mdframed.sty.
          wpdelivs
                          171 \surroundwithmdframed{wpdelivs}
      \milestone
                          172 \define@key{milestone}{verif}{\gdef\mile@verif{#1}\pdata@def{mile}\mile@id{verif}{#1}}
```

⁹EdNote: document this above

```
milestonetable here we do the work.
                                          173 \define@key{mst}{caption}{\gdef\mst@caption{#1}}
                                          174 \define@key{mst}{wname}{\gdef\mst@wname{#1}}
                                          175 \define@key{mst}{wdeliv}{\gdef\mst@wdeliv{#1}}
                                          176 \define@key{mst}{wverif}{\gdef\mst@wverif{#1}}
                                          177 \newcommand\milestonetable[1][]{%
                                          178 \def\mst@caption{Milestones, Deliverables, and Verification}%
                                           179 \def\mst@wname{2.5cm}\def\mst@wdeliv{7cm}\def\mst@wverif{4cm}
                                          180 \setkeys{mst}{#1}%
                                          181 {\gdef\mst@lines{}%initialize
                                          182 \let\tabularnewline\relax\let\hline\relax% so they
                                          183 \let\textbf\relax\let\emph\relax\% do not bother us
                                          184 \edef\@@miles{\pdataref{all}{mile}{ids}}
                                          185 \ensuremath{\mbox{\sc Vgfor\ensuremath{\mbox{\sc Vgfor\ensuremath{\sc Vgfor\ensuremath}\suremath}}}}}}}}}}}}}}}
                                          186 \edef\@delivs{\pdataref@safe{mile}{\@I}{delivs}}%
                                          187 \def\@@delivs{}
                                          188 \@for\@J:=\@delivs\do{\xdef\@@delivs\\pdataref{deliv}\@J{label}}}
                                          189 \def\@@line{
                                          190 \textbf{\pdataref{mile}\@I{label}}&
                                          191 \emph{\pdataref{mile}{\@I}{title}} &
                                          192 \@@delivs&
                                           193 \pdataref{mile}\@I{month} &
                                          194 \pdataref{mile}\@I{verif}}
                                          195 \xdef\mst@lines{\mst@lines\@@line\tabularnewline\hline}}}
                                          196 \begin{table}[ht]
                                          197 \begin{tabular}{|1|p{\rm wst@wname}|p{\rm wst@wdeliv}|1|p{\rm wst@wverif}|}\\ hline
                                          198 \#&\textbf{\miles@legend@name}
                                          199 &\textbf{\miles@legend@involved}
                                          200 &\textbf{\miles@legend@mo}
                                          201 &\textbf{\miles@legend@verif}\\\hline\hline
                                          202 \mst@lines
                                          203 \end{tabular}
                                          204 \caption{\mst@caption}\label{tab:milestonetable}
                                          205 \end{table}
                                          206 \footnotetext\miles@legend@footnote}
                                            now the multilinguality support
                                          207 \newcommand\miles@legend@name{Name}
                                          208 \newcommand\miles@legend@mo{Mo}
                                          209 \newcommand\miles@legend@verif{Means of Verif.}
                                          210 \newcommand\miles@legend@involved{WPs\footnotemark/Deliverables involved}
                                          211 \newcommand\miles@legend@footnote{The work package number is the first number in the deliverable number.}
\prop@milesfor the due date is the first argument to facilitate sorting
                                          212 \newcommand\prop@milesfor[1]{\edef\@delivs{\pdataref@safe{mile}{#1}{delivs}}}%
                                          213 \let\m@sep=\relax\def\new@sep{,\ }%
                                          214 \c) {1:=\c} 
                                             4.6
                                                              Risks
                           risk
                                          215 \newenvironment{risk}[3]
                                          216 {\paragraph{Risk: #1}\hfill\emph{probability}: #2, \emph{gravity}: #3\par\noindent\ignorespaces}
                                          217 {}
                 riskcont
                                          218 \newenvironment{riskcont}[3]
                                          219 {\begin{risk}{#1}{#2}{#3}\textbf{Contingency:} }
                                          220 {\end{risk}}
```

4.7 Relevant Papers

\keypubs