### 1.2 Packages

Packages extend the basic LaTeX commands. There are standard packages that are included with every LaTeX implementation and there are “contributed packages” submitted by LaTeX users (Kopka & Daly, 2004). Some publisher class files include standard packages, so they need not be declared in your LaTeX document. Elsarticle.cls includes geometry.sty and sets necessary variables. To use packages include the following markup command

\texttt{\usepackage[options]{package name}}

The options declared in the document class are global, so they have precedence. Any option set in the document class file will apply to all packages. Options used with the packages apply to the packages only (Kopka & Daly, 2004). When compiling, an “unknown control sequence” often indicates that a package is needed.

### 1.3 Article Class with LaTeX- article.cls

The focus of this workshop is the \texttt{article} class, article.cls. The structural considerations of the document remain the same when using any of the publisher class files discussed in this workshop since they are based on article.cls. There might be syntax differences when specifying title and author; however, generally the declaration of sections remain the same. It will appear different typographically with the selection of these classes, but the user will include them in the document in the same manner. The basic structure of a document is given below.

\texttt{\documentclass[twoside]{article} \usepackage{graphicx} \usepackage{hyperref}}

\texttt{\title{Using Document Classes and Packages for your Journal} \author{T. Stitz \ and J. Doe \ and A. Smith}}

... more preamble commands

\texttt{\begin{document} \maketitle \section{First Level}}

---

2 Commands begin with a backslash (i.e. \texttt{\maketitle}) and environments use \texttt{\begin{environment}.}
Some publisher class files extend options for existing markup commands and environments. For example, elsartarticle.cls provides an optional argument to specify the format of a numbered list to make it easier for the author. Others provide additional commands and environments. Siamltex.cls uses environments called \renumerate and \romannum to apply formatting to the traditional \enumerate. IEEEtran.cls offers an optional argument for numbered lists, as well as various commands to enable setting list properties globally.

Some publisher class documentations specify how to use existing \LaTeX commands to achieve the journal style. The documentation for SIAM’s macros states to use \S for section references except when the reference is the first word in the sentence. It also specifies when to use which dash (i.e. total width – margins, from 3–5, a sentence—–with a clause).

### 1.2 Packages

Packages extend the basic \LaTeX commands. There are standard packages that are included with every \LaTeX implementation and there are “contributed packages” submitted by \LaTeX users (Kopka & Daly, 2004). Some publisher class files include standard packages, so they need not be declared in your \LaTeX document. Eslarticle.cls includes geometry.sty and sets necessary variables. To use packages include the following markup command

\begin{verbatim}
\usepackage[options]{package name}
\end{verbatim}

The options declared in the document class are global, so they have precedence. Any option set in the document class file will apply to all packages. Options used with the packages apply to the packages only (Kopka & Daly, 2004). When compiling, an “unknown control sequence” often indicates that a package is needed.

### 1.3 Article Class with \LaTeX- article.cls

The focus of this workshop is the article class, article.cls. The structural considerations of the document remain the same when using any of the publisher class files discussed in this workshop since they are based on article.cls. There might be syntax differences when specifying title and author; however, generally the declaration of sections remain the same. It will appear different typographically with the selection of these classes, but the user will include them in the document in the same manner. The basic structure of a document is given below.

\begin{verbatim}
\documentclass[twoside]{article}
\usepackage{graphicx}
\usepackage{hyperref}
\title{Using Document Classes and Packages for your Journal}
\author{T. Stitz \and J. Doe \and A. Smith}
\begin{document}
\maketitle
\section{First Level}
\end{document}
\end{verbatim}

\footnote{Commands begin with a backslash (i.e. \maketitle) and environments use \begin{environment}.}
class is

Using Baselinestretch
\renewcommand\baselinestretch{2}
\documentclass[options]{class name}.

Class files contain global processing information for the publication (Kopka & Daly, 2004). For example, URL color is declared as blue in elsarticle.cls if the hyperref package is loaded. Declaring a color of green in the document will not change the color.

Publisher class files can change default options as provided by article.cls. Siamltex.cls changes the default option to twoside output in order to use the markup command \markboth{}{} for the running headings without requiring the user to specify twoside in the options (article.cls default is oneside). IEEEtran.cls changes the default option of number of columns to twocolumn (article.cls default is onecolumn). Sometimes additional formatting is added to these options. IEEEtran.cls draft mode specifies double spacing to allow space for editing comments. It also forces capitalization of running headings. Sometimes class file formatting changes the order of markup commands. For example, the abstract is part of the “front matter” in Elsevier journals, thus it appears before \maketitle. This is also the case for IEEE Computer Society Journals.

In addition, many publisher class files extend the options available via article.cls. IEEEtran.cls has several article types that have different formatting (conference, journal, technote, peerreview, peerreviewca). Siamltex.cls gives options to change the default numbering for equations, theorems, figures, and tables.

Some publisher class files extend options for existing markup commands and environments. For example, elsarticle.cls provides an optional argument to specify the format of a numbered list to make it easier for the author. Others provide additional commands and environments. Siamltex.cls uses environments called renumerate and romannum to apply formatting to the traditional enumerate. IEEEtran.cls offers an optional argument for numbered lists, as well as various commands to enable setting list properties globally.

Some publisher class file documentation specifies how to use existing \LaTeX commands to achieve the journal style. The documentation for SIAM’s macros states to use \S for section references except when the reference is the first word in the sentence. It also specifies when to use which dash (i.e. total width – margins, from 3–5, a sentence—with a clause).

\footnote{Commands begin with a backslash (i.e. \maketitle) and environments use \begin{environment}.}
Class files (Kopka & Daly, 2004). For example, the \usepackage{setspace} package is loaded. Declaring a color of green in the document will not change the color.

Publisher class files can change default options as provided by article.cls. Siamltex.cls changes the default option to twoside output in order to use the markup command \markboth{}{} for the running headings without requiring the user to specify twoside in the options (article.cls default is oneside). IEEEtran.cls changes the default option of number of columns to twocolumn (article.cls default is onecolumn). Sometimes additional formatting is added to these options. IEEEtran.cls draft mode specifies double spacing to allow space for editing comments. It also forces capitalization of running headings. Sometimes class file formatting changes the order of markup commands. For example, the abstract is part of the “front matter” in Elsevier journals, thus it appears before \maketitle. This is also the case for IEEE Computer Society Journals.

In addition, many publisher class files extend the options available via article.cls. IEEEtran.cls has several article types that have different formatting (conference, journal, technote, peerreview, peerreviewca). Siamltex.cls gives options to change the default numbering for equations, theorems, figures, and tables.

Some publisher class files extend options for existing markup commands and environments. For example, elsarticle.cls provides an optional argument to specify the format of a numbered list to make it easier for the author. Others provide additional commands and environments. Siamltex.cls uses environments called renumerate and romannum to apply formatting to the traditional enumerate. IEEEtran.cls offers an optional argument for numbered lists, as well as various commands to enable setting list properties globally.

Some publisher class file documentation specifies how to use existing \LaTeX commands to achieve the journal style. The documentation for SIAM’s macros states to use \S for section references except when the reference is the first word in the sentence. It also specifies when to use which dash (i.e. total width – margins, from 3–5, a sentence—with a clause).

### 1.2 Packages

Packages extend the basic \LaTeX commands. There are standard packages that are included with every \LaTeX implementation and there are “contributed packages” submitted by \LaTeX users (Kopka & Daly, 2004). Some publisher class files include standard packages, so they need not be declared in your \LaTeX document. Elsarticle.cls includes geometry.sty and sets necessary variables. To use packages include the following markup command

```latex
\usepackage[options]{package name}
```

---

2Commands begin with a backslash (i.e. \maketitle) and environments use \begin{environment}.