Instructions for Authors
Coding with LaTeX

Gesture Recognition in ROS with Pepper

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1 Introduction

Abstract 10-15zeilen: mmi gesten als wichtige modalitt gewinnbringend nutzen Authors wishing to code their contribution with LaTeX, as well as those who have already coded with LaTeX, will be provided with a document class that will give the text the desired layout. Authors are requested to adhere strictly to these instructions; *the class file must not be changed.*

The text output area is automatically set within an area of 12.2 cm horizontally and 19.3 cm vertically.

If you are already familiar with LaTeX, then the LLNCS class should not give you any major difficulties. It will change the layout to the required LLNCS style (it will for instance define the layout of `\section`). We had to invent some extra commands, which are not provided by LaTeX (e.g. `\institute`, see also Sect. **??**)

2 Gestensteuerung

The LLNCS class is an extension of the standard LaTeX "article" document class. Therefore you may use all "article" commands for the body of your contribution to prepare your manuscript. LLNCS class is invoked by replacing "article" by "llncs" in the first line of your document:

```
\documentclass{llncs}
%
\begin{document}
  <Your contribution>
\end{document}
```

3 Pepper

Hier kommen zum Beispiel die technischen Daten von Pepper hin.

4 Verfahren zu Gestenerkennung

Hier folgen drei Verfahren zur Gestenerkennung.

4.1 Gestenerkennung durch KOMSM

KOMSM

4.2 Gestenerkennung mit Tiefensensor

aa

4.3 Gestenerkennung durch neuronale Netzwerke

lll

5 Fazit

Alles sehr toll.

6 References

There are three reference systems available; only one, of course, should be used for your contribution. With each system (by number only, by letter-number or by author-year) a reference list containing all citations in the text, should be included at the end of your contribution placing the LaTeX environment `thebibliography` there. For an overall information on that environment see the *LaTeX User's Guide & Reference Manual* by Leslie Lamport, p. 71.

There is a special BibTeX style for LLNCS that works along with the class: `splncs.bst` – call for it with a line `\bibliographystyle{splncs}`. If you plan to use another BibTeX style you are customed to, please specify the option `[oribibl]` in the `documentclass` line, like:

```
\documentclass[oribibl]{llncs}
```

This will retain the original LaTeX code for the bibliographic environment and the `\cite` mechanism that many BibTeX applications rely on.

6.1 References by Letter-Number or by Number Only

References are cited in the text – using the `\cite` command of LaTeX – by number or by letter-number in square brackets, e.g. [1] or [E1, S2], [P1], according to your use of the `\bibitem` command in the `thebibliography` environment. The coding is as follows: if you choose your own label for the sources by giving an optional argument to the `\bibitem` command the citations in the text are marked with the label you supplied. Otherwise a simple numbering is done, which is preferred.

```
The results in this section are a refined version
of \cite{clar:eke}; the minimality result of Proposition~14
was the first of its kind.
```

The above input produces the citation: "... refined version of [CE1]; the minimality...". Then the `\bibitem` entry of the `thebibliography` environment should read:

```
\begin{thebibliography}{[MT1]}
.
.
\bibitem[CE1]{clar:eke}
```

```
Clarke, F., Ekeland, I.:
Nonlinear oscillations and boundary-value problems for
Hamiltonian systems.
Arch. Rat. Mech. Anal. 78, 315--333 (1982)
.
.
\end{thebibliography}
```

The complete bibliography looks like this:

References

[CE1] Clarke, F., Ekeland, I.: Nonlinear oscillations and boundary-value problems for Hamiltonian systems. Arch. Rat. Mech. Anal. 78, 315–333 (1982)

[CE2] Clarke, F., Ekeland, I.: Solutions périodiques, du période donnée, des équations hamiltoniennes. Note CRAS Paris 287, 1013–1015 (1978)

[MT1] Michalek, R., Tarantello, G.: Subharmonic solutions with prescribed minimal period for nonautonomous Hamiltonian systems. J. Diff. Eq. 72, 28–55 (1988)

[Ta1] Tarantello, G.: Subharmonic solutions for Hamiltonian systems via a $\mathbb{Z}_p$ pseudoindex theory. Annali di Matematica Pura (to appear)

[Ra1] Rabinowitz, P.: On subharmonic solutions of a Hamiltonian system. Comm. Pure Appl. Math. 33, 609–633 (1980)

Number-Only System. For this preferred system do not use the optional argument in the `\bibitem` command: then, only numbers will appear for the citations in the text (enclosed in square brackets) as well as for the marks in your bibliography (here the number is only end-punctuated without square brackets).

Subsequent citation numbers in the text are collapsed to ranges. Non-numeric and undefined labels are handled correctly but no sorting is done.

E.g., `\cite{n1,n3,n2,n3,n4,n5,foo,n1,n2,n3,?,n4,n5}` – where nx is the key of the x^{th} `\bibitem` command in sequence, `foo` is the key of a `\bibitem` with an optional argument, and `?` is an undefined reference – gives 1,3,2-5,foo,1-3,?,4,5 as the citation reference.

```
\begin{thebibliography}{1}
\bibitem {clar:eke}
Clarke, F., Ekeland, I.:
Nonlinear oscillations and boundary-value problems for
Hamiltonian systems.
Arch. Rat. Mech. Anal. 78, 315--333 (1982)
\end{thebibliography}
```

6.2 Author-Year System

References are cited in the text by name and year in parentheses and should look as follows: (Smith 1970, 1980), (Ekeland et al. 1985, Theorem 2), (Jones and Jaffe

1986; Farrow 1988, Chap. 2). If the name is part of the sentence only the year may appear in parentheses, e.g. Ekeland et al. (1985, Sect. 2.1) The reference list should contain all citations occurring in the text, ordered alphabetically by surname (with initials following). If there are several works by the same author(s) the references should be listed in the appropriate order indicated below:

a) One author: list works chronologically;
b) Author and same co-author(s): list works chronologically;
c) Author and different co-authors: list works alphabetically according to co-authors.

If there are several works by the same author(s) and in the same year, but which are cited separately, they should be distinguished by the use of "a", "b" etc., e.g. (Smith 1982a), (Ekeland et al. 1982b).

How to Code Author-Year System. If you want to use this system you have to specify the option `[citeauthoryear]` in the `documentclass`, like:

```
\documentclass[citeauthoryear]{llncs}
```

Write your citations in the text explicitly except for the year, leaving that up to LaTeX with the `\cite` command. Then give only the appropriate year as the optional argument (i.e. the label in square brackets) with the `\bibitem` command(s).

Sample Input

```
The results in this section are a refined version
of Clarke and Ekeland (\cite{clar:eke}); the minimality result of
Proposition~14 was the first of its kind.
```

The above input produces the citation: "... refined version of Clarke and Ekeland (1982); the minimality...". Then the `\bibitem` entry of `clar:eke` in the `thebibliography` environment should read:

```
\begin{thebibliography}{}  % (do not forget {})
.
.
\bibitem[1982]{clar:eke}
Clarke, F., Ekeland, I.:
Nonlinear oscillations and boundary-value problems for
Hamiltonian systems.
Arch. Rat. Mech. Anal. 78, 315--333 (1982)
.
.
\end{thebibliography}
```

Sample Output

References

Clarke, F., Ekeland, I.: Nonlinear oscillations and boundary-value problems for Hamiltonian systems. Arch. Rat. Mech. Anal. 78, 315–333 (1982)