Titles should be no more than three typeset lines (generally 135 characters including spaces) and should be comprehensible to a broad scientific audience (replace with your real title)[*]

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with the ZIP/postal code, for each author. Use superscripts to match authors with institutions.

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Keywords: Keywords are listed below the abstract of the manuscript. At least three keywords are required at submission.

I. INTRODUCTION

NST, founded in 1990, is a unique journal published in English in the field of nuclear research in China. This periodical is devoted to the publication of fundamental research papers. Coverage in NST spans all aspects of nuclear science and technology including theories, experiments and applications. A special interest lies in the subjects of synchrotron radiation applications, beam line technology, low energy accelerator, ray technology and applications,nuclear chemistry, radio-chemistry and radiopharmaceuticals and nuclear medicine, nuclear electronics and instrumentation, nuclear physics and interdisciplinary research, nuclear energy science and engineering as well.

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II. FIGURES

Provide figure images in EPS, JPEG, PNG or GIF format; Color images must be in RGB (red, green, blue) mode. Images must be final size, preferably one column width (8.5 cm). Figures wider than one column should be between 10.5 and 16.0 cm wide. Numbers, letters, and symbols should be 7 points after reduction and must be consistent.

Submitted raster images must meet the minimum resolution requirements. Raster images can be classified as monochrome (line-art), halftone, or combination halftone.

Monochrome (1-bit) images (line drawing): Common examples are graphs and charts made of solid black and white, with no gray values. The preferred resolution for this type of image is between 1000 and 1200 dpi at publication size.

Combination Halftones: Common examples are color or grayscale figures containing halftone and line art elements. The preferred resolution for this type of image is between 600 and 900 dpi at publication size.

Halftones: Common examples are color or grayscale figures containing pictures only, with no text or thin lines. The suggested minimum resolution for this type of image is 300 dpi at publication size.

The graphics could be wrapped in the `figure` float environment. The word "float" means that the location of the block will be determined by the program by using an aesthetical algorithm. For example, if a figure is wrapped in `\begin{figure}[!htb]...\end{figure}`, LaTeX

will try to put it in the current place. If LaTeX thinks it is not an appropriate place, it will try to put it at the top of the current page. If that fails as well, it will try to put it at the bottom of the page. What happens is not really important to the authors, but it is always a good idea to put a block of contents in a float environment such as figures and tables.

If an external figure file is wanted to be included in the article, the `\includegraphics{filename}` macro will be used. The title of the figure can be specified by using the `\caption{Caption contents...}` and a cross reference anchor `\label{key}` is preferred to be following the `\caption` macro. The cross reference is yet another powerful tool used by LaTeX. Once a `\label` is set, the ordinal and the page number can be referred by using `\ref{key}` and `\pageref{key}` anywhere within the article and they will be synchronizing without further interfering.

A full example is shown in listing 1 and produces the Fig. 1. The `draft` key used here is only because this template comes without `file.png` and this key would draw a frame box to illustrate how the picture would be inserted and it's always not used in practical writings. the `width` key will scale the width of the picture to 80% of the text width, keeping the ratio between the width and the height. A really wide picture could be inserted by using the `figure*` environment as shown in Fig. 2.

Listing 1. Source code of Figure 1

```
\begin{figure}[!htb]
\includegraphics
  [draft,width=0.8\hsize]
  {file.png}
\caption{A well-prepared line drawing
   reduced to the journal column width.}
\label{fig:one-column-figure}
\end{figure}
```
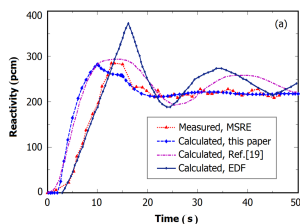

Fig. 1. A well-prepared line drawing reduced to the journal column width.

Listing 2. Source code of Figure 2

```
\begin{figure*}[!htb]
\includegraphics
  [width=0.9\hsize]
  {file.png}
\caption{The actual size of a well-prepared
   line drawing.}
\label{fig:two-columns-figure}
\end{figure*}
```

III. TABLES

Tables should be numbered consecutively with Arabic numerals and placed in appropriate locations within the text. Each table should include a descriptive heading that, together with the individual column headings, makes the table self-explanatory. Footnotes in tables should be given letter designations and be cited in the table by superscript letters. The sequence of letters should proceed by line rather than by column.

To provide professional, publication quality tables, vertical rules are prohibited as illustrated in table 1. The source code is shown in listing 3. The Table environment provides a float environment (please refer to Sec. II, and like the figure environment, the table environment also has the star-version environment table*) for the tabular and the `\label` macro provide the cross reference anchor for further usage. The tabular environment draws the table here and the parameter `llr` means that this table has three columns: the first two columns will be left aligned and the last column will be right aligned. The `\toprule`, `\cmidrule`, `\midrule` and `\bottomrule` draw the top, middle and bottom rules respectively. The `&` symbol is the delimiter of the table, separating the columns and the `\\` means the end of a row.

Table 1. The caption of the table goes here.

Item		
Animal	Description	Price ($)
Gnat	per gram	13.65
	each	0.01
Gnu	stuffed	92.50
Emu	stuffed	33.33
Armadillo	frozen	8.99

Listing 3. Source code of Table 1

```
\begin{table}[!htb]
\caption{The caption of the table goes here.}
\label{tab:animal-price}
\begin{tabular*}{8cm}{@{\extracolsep{\fill}
   } llr}
\toprule
\multicolumn{2}{c}{Item} \\
\cmidrule(r){1-2}
Animal & Description & Price (\$) \\
\midrule
Gnat  & per gram & 13.65 \\
      & each     & 0.01 \\
Gnu   & stuffed  & 92.50 \\
Emu   & stuffed  & 33.33 \\
Armadillo & frozen & 8.99 \\
\bottomrule
\end{tabular*}
\end{table}
```
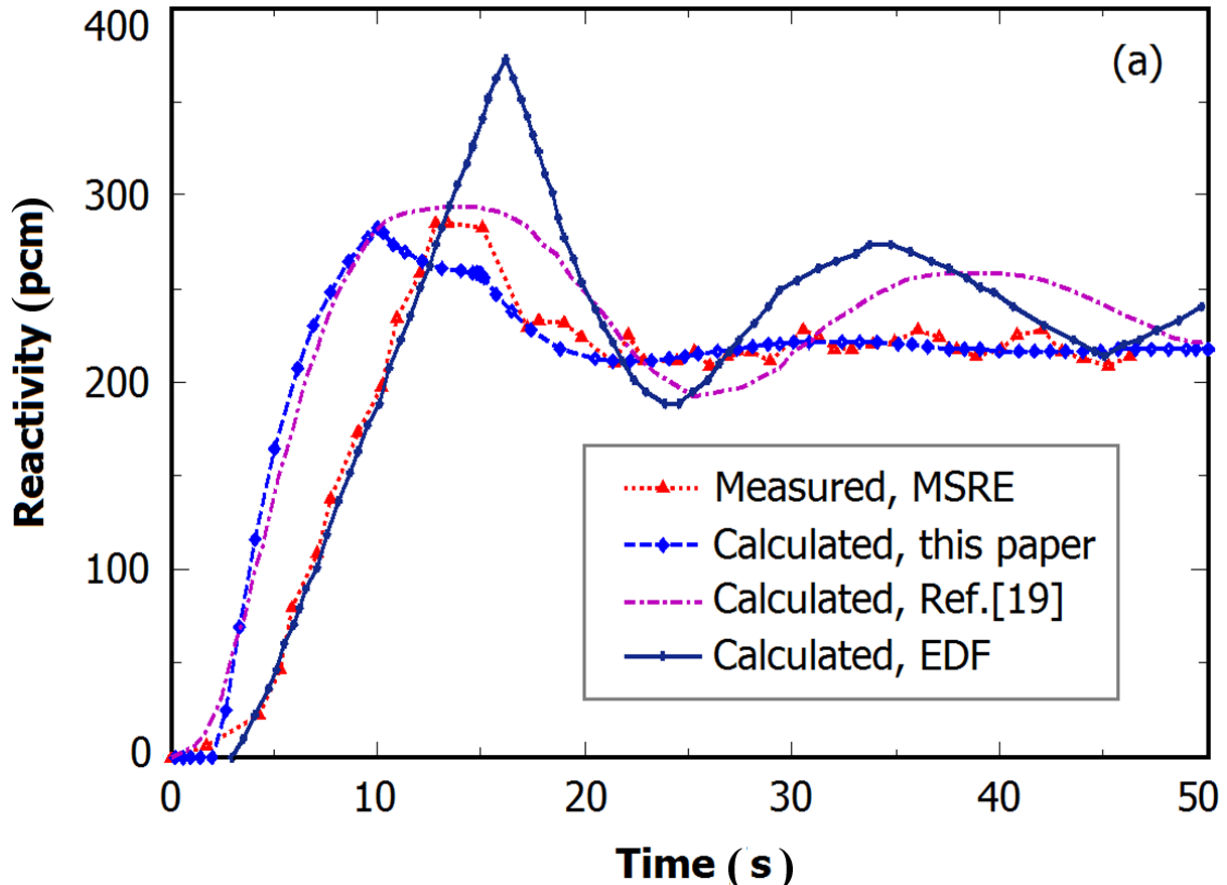
Fig. 2. The actual size of a well-prepared line drawing.

IV. UNITS

The SI system should be used for all scientific and laboratory data. To typeset the SI units, two commands[3] can be handy: \SI{*num*}{*unit*} and \si{*unit*}. For example, \SI{3e8}{\metre\per\second} gives $3 \times 10^8 \, \mathrm{m \, s^{-1}}$ and \si{\micro\ampere} gives μA. Abbreviations are also supported so that \si{m/s} and \si{kg.m/s^2} will be converted to the corresponding symbols correctly. For more information, please read the manual of the siunitx package.

V. MATH

A. In-line math

The in-line math symbols or equations can be typeset by putting them in the $...$ blocks. For example, $\mathcal{F} = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\infty} \mathrm{d}t \, e^{i\omega t}$ will produce $\mathcal{F} = \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\infty} \mathrm{d}t e^{i\omega t}$.

The display math formula can be obtained by using the equation environment as shown in listing 4 and Eq. (1).

Listing 4. Source code of Equation (1)

```
\begin{equation}\label{eq1}
C_{ab}^b_=_-C_{ba}^b_=_+2,_\quad
C_{ac}^c_=_-C_{ca}^c_=_-2,_\quad
C_{bc}^a_=_-C_{cb}^a_=_+1_.
\end{equation}
```

$$C_{ab}^b = -C_{ba}^b = +2, \quad C_{ac}^c = -C_{ca}^c = -2, \quad C_{bc}^a = -C_{cb}^a = +1. \tag{1}$$

B. Wide Contents

If in such circumstances that the contents are too wide for the column, the authors are encouraged to use the widetext environment to put these in. We can see that both listing 4 and Eq. (1) are a little wider than the width of the text so that a more esthetically acceptable way would be using the code in listing 5.

Listing 5. Source code of Equation (2)

```
174
175 \begin{widetext}
176 \begin{equation}\label{eq:structure-constants-of-Lie-algebra-1}
177 C_{ab}^b = -C_{ba}^b = +2,\quad
178 C_{ac}^c = -C_{ca}^c = -2,\quad
179 C_{bc}^a = -C_{cb}^a = +1 .
180 \end{equation}
181 \end{widetext}
182
```

And get the output as in Eq. (2).

$$C_{ab}^b = -C_{ba}^b = +2, \quad C_{ac}^c = -C_{ca}^c = -2, \quad C_{bc}^a = -C_{cb}^a = +1. \tag{2}$$

VI. BIBLIOGRAPHY

The `thebibliography` environment provides a cross reference way to cite the bibliographies. Its only parameter is used to determine the label width and an article referring 10–99 references will always use 99 as the parameter. The entries will be labeled by the `\bibitem` and referred with `\cite`. This template fakes 20 references labeled from `bib:1` to `bib:20`[4] and the command `\cite{bib:1}` will cite the first entry[1] and `\cite{bib:2, bib:3, bib:4, bib:5, bib:6, bib:7, bib:8, bib:9, bib:10, bib:20, bib:19, bib:18, bib:17, bib:15, bib:14, bib:13, bib:12, bib:11}` will sort and compress the entries[2–5]

[1] C. Simenel, P. Chomaz, G. de France, Quantum calculation of dipole excitation in fusion reaction. Phys. Rev. Lett. **86**, 2971–2974 (2001). doi: 10.1103/PhysRevLett.86.2971

[2] C. Tao, Y. G. Ma, G. Q. Zhang, *et al.*, Pygmy and giant dipole resonances by Coulomb excitation using a quantum molecular dynamics model. Phys. Rev. C, **87**: 014621 (2013). DOI: 10.1103/PhysRevC.87.014621

[3] D.M. Abrams, in *Conductive Polymers*, ed. by R.S. Seymour, A. Smith (Springer, Berlin Heidelberg New York, 1973), p. 307

[4] H. Ibach, H. Lüth, *Solid-State Physics*, 2nd edn. (Springer, New York, 1996), pp. 45–56

[5] D. Zowghi et al., in *PRICAI '96: Topics in Artificial Intelligence*, ed. by N. Foo, R. Goebel. 4th Pacific Rim Conference on Artificial Intelligence, Cairns, August 1996. Lecture Notes in Computer Science. Lecture notes in artificial intelligence, vol. 1114 (Springer, Heidelberg, 1996), p. 157

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[3] These commands are provided by the `siunitx` package which has been taken care of by the NST class automatically.

[4] Actually, this is not a good way to label your references without any actual meanings. The author of the guide uses `bib:author:year:journal:volume:number` to label his references and an adequate editor (he uses TeXstudio and emacs)