

COMGEO-IV EXTENDED ABSTRACTS INSTRUCTION FOR AUTHORS USING L^AT_EX

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1. General

The authors are requested to submit **extended two-page abstracts** in the format described in sections below. In general, the abstract should outline the area of research, the methodology, the basic assumptions and highlight the main results. A list of basic references is recommended.

All extended abstracts will be included in the electronic publication ‘4th International Symposium on Computational Geomechanics, Assisi, Italy, 2-4 May 2018 - Book of Extended Abstracts’ which will be available free to download from the website of the International Centre of Computational Engineering (<http://www.ic2e.org/comgeo-iv/>).

The abstracts must reach the Organizers not later than **March 1, 2018**.

2. Contents of this package

The information for typesetting the document in the required format is provided in the class file `comgeo_iv.cls`, derived from the Springer class file `svmult.cls`. The package includes the files for the packages:

- a) *timesmt* (contained in the additional file `timesmt.sty`), used to change the fonts from the standard Computer Modern Roman to Times New Roman;
- b) *subeqnar* (contained in the additional file `subeqnar.sty`), used to establish a new environment `subeqnarray` that locally numbers the lines of an equation array with the same number;

as well as the bibTeX style file `cj.bst`, necessary to produce the bibliography from a bibliography database such as the `comgeo_iv.bib` file.

3. Paper size, margins and paper length

Please, use the standard A4 (210×297 mm) paper size. Allow 2 cm left and right margins and 2.5 cm top and bottom margins (use the typing area of 17 24.7 cm). Contributions longer than two pages, or those with poor quality of English, will not be included in the volume of abstracts.

4. Font size, spacing, title, headings

Times Roman fonts of 12 point size should be used throughout the paper with single spacing between lines of text. This is achieved using the `[12pt]` option in the command `\documentclass`.

The title should be centered in all capital characters and bold face. Do not leave any additional space above the title. The title should be followed by authors’ names (bold-italic) and respective affiliations (italic). Leave 20 pt (about two empty lines) between the title and authors’ names and the same space between the affiliation (institution, city, and country) and the beginning of the text. In order to save space, the affiliation should not include the full address of your institution.

The section headings (if used) should be left aligned with no indentation, set in bold face with extra space of 12 points above and 6 points below. The paragraphs should be left and right justified with 1 cm indentation of the first line.

If necessary, please use SI units in the text. Units (and their prefixes) should correspond to the SI standards and be put upright. In your .tex input please use a small fixed space between a number and its unit. Please do not put units within angled brackets, instead use round brackets or, in case you need to depict two related units, either use a slash or write them as fraction.

5. Tables and figures

Figures, tables and their captions should be centered and numbered. Leave 12 points above and below the figure/table. Please, avoid grey-scale images as they may not reproduce correctly.

Paper size	Paper length	Font size	Line spacing
A4 (210×297)	2 pages	12 pt	single
A5 (148×210)	1 page	12 pt	double

Table 1. Basic format specifications.

If you want to include your *.jpg or *.pdf figures electronically we recommend to use the macro `\placefig` – based on the `graphicx` package. Here is a coding example:

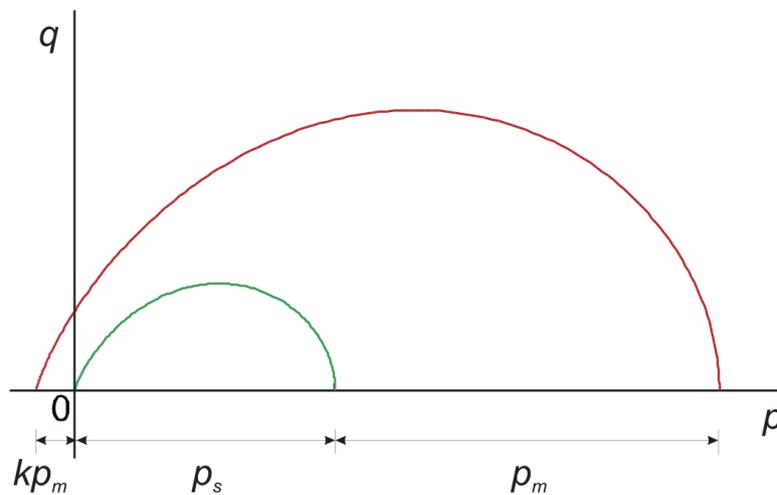


Figure 1. Example of an electronically included pdf-figure

6. Equations

Please set mathematical expressions and formulae within the running text in mathmode, i.e. $\$ \dots \$$, so that the desired spaces are set automatically. In the text mode please put a fixed thin space (`\,`) between a number and its unit.

Displayed formulae will automatically be set centered like this:

$$\dot{\sigma}_{ij} = D_{ijkl} \dot{\epsilon}_{kl} \quad (1)$$

Equation arrays. In order to get a readable layout for your equation arrays we recommend that you use the `LATEX` environment `eqnarray`. This will automatically use optimal line spaces and line

breaks. In any case, put the equals sign generally at the beginning of a line; operators such as $+$, $-$, \times , etc. should also be at the beginning of the new line and should be indented to the right of the equals sign of the line above.

If you want to sub-number individual lines of your equation array you may use the enclosed style `subeqnar.sty` – the `\usepackage` command and corresponding definitions needed have already been set in the sample input file. Here is an example for the automatic sub-numbering of equation arrays, using the style `subeqnar.sty`:

$$a = c + d \tag{2a}$$

$$e = f - d \tag{2b}$$

If direct notation is used, vectors and tensors can be typed in boldface italic by using the command `\vec{\cdot}`, as in the following equation:

$$\dot{\boldsymbol{\sigma}} = \boldsymbol{D}\dot{\boldsymbol{\epsilon}} \tag{3}$$

where, for example, the command `\vec{\sigma}` has been used to produce the symbol $\boldsymbol{\sigma}$.

7. Citing references

The `cj.bst` bibliography style provided in the package can be used to process the bibliography with `bibTeX`. To use it, place the file `cj.bst` in the TeX search path (Placing it in the same directory as the `LaTeX` document should also work).

Examples of citations: articles, see [1, 2]; proceedings, see [3]; books, see [4]; PhD thesis, see [5]. The `.bib` file `comgeo_iv.bib` used to produce them is also provided in the package.

References

- [1] Zytynsky, M., Randolph, M. F., Nova, R., and Wroth, C. P. (1978). On modelling the unloading–reloading behaviour of soils. *Int. J. Num. Anal. Meth. Geomech.*, **2**, 87–94.
- [2] Sture, S., Runesson, K., and Macari-Pasqualino, E. J. (1989). Analysis and calibration of a three–invariant plasticity model for granular materials. *Ingenieur–Archiv*, **59**, 253–266.
- [3] Gens, A. and Nova, R. (1993). Conceptual bases for a constitutive model for bonded soils and weak rocks. Anagnostopoulos et al. (eds.), *Hard Soils–Soft Rocks*, Athens, Greece, Balkema, Rotterdam.
- [4] Marsden, J. and Hughes, T. (1994). *Mathematical foundations of elasticity*. Dover Publications Inc., NY.
- [5] Jeremic, B. (1997). *Finite Deformation Hyperelasto–plasticity of Geomaterials*. Ph.D. thesis, University of Colorado at Boulder.