Abstract title

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Keywords: *3 to 5 keywords separated by commas*

As part of GeoProc conference series, this event carries forward certain traditions as well as breaks new grounds related to Coupled Thermo-Hydro-Mechano-Chemical (THMC) processes in Geosystems.

Geoproc gives emphasis into approaches that highlight the coupled multiphysical aspects of the applications as well as the techniques used to approach them.

Natural and induced motion on faults, in particular the initiation and propagation of earthquake rupture, involves a wide range of complexly coupled THMC processes involving frictional deformation, heat production, pore fluid pressurization, phase changes, chemical reactions, creep and fluid flow at scales. Recent developments are rapidly advancing our understanding of faulting phenomenon, from brittle versus ductile faulting, to seismic versus aseismic frictional slip, rupture nucleation, coseismic slip, slow slip and tectonic versus induced earthquake rupture behavior. Ongoing progress depends on integrating different research fields and disciplines, including laboratory and numerical experiments with input from field geology, seismology, rock engineering, material sciences and advanced microscopy techniques. The complexity of the coupled THMC processes involved and the vast range of length and time scales that have to be considered is unprecedented.

The topics to be addressed by GeoProc 2019 will include:

1. Slow to fast frictional experiments, theory and numerical modelling
2. Geophysical observations and interpretation in terms of coupled THMC processes
3. Empirical and (micro)physically based models of THMC processes in faulting
4. Role of THMC processes in controlling natural destructive earthquakes
5. Role of THMC processes in induced seismicity, fault reactivation and landslides

Instructions: The abstract should be 2 pages maximum including references, figures and tables. It should contain one figure at least (Figure 1). The pdf size shouldn’t exceed 3 Mb.

Please follow the present template (Table 1).

* top and bottom margins: 2,5 cm;
* left and right margins: 2,5 cm.



Figure 1. GeoProc2017 logo.

 $\left[n\_{j}L\_{ijkl}n\_{l}-ρ\left(\frac{λ s}{2π}\right)^{2}δ\_{ik}\right]g\_{k}=0$ (1)

Table 1. Styles.

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| --- | --- | --- | --- | --- | --- |
| Type | Upper/lower case | Fonts | Size | Alignment | Comments |
| Title | lowecase | bold | 14 | center | – |
| Authors | lowercase | italics | 12 | center | *N. Surname* |
| Keywords | lowercase | italics | 12 | left |  |
| Affiliations | lowercase | normal | 10 | left | – |
| Text | lowercase | bold | 12 | justified | – |
| Captions | normal | normal | 10 | center | below figure / above table |
| References | normal | normal | 10 | justified | American Geophysical Union style  |

Submission: Submit the abstract to the email address:

GeoProc2019@uu.nl

# References

Surname, N., and N. Surname (2014), Publication title, *J. Geophys. Res. Solid Earth*, *x*(y), xxx–yyy, doi:10.1002/2013JB010342.

Surname, N., and N. Surname (2014), Publication title, *Geophys. Res. Lett.*, *x*(y), xxx–yyy, doi: 10.1002/2014GL061715.

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