

## PUBLICATIONS

### Books

VARDOULAKIS I. and SULEM J., (1995) *Bifurcation in geomechanics*, 459 pp., Blackie Academic & Professional, Glasgow, England.

HATZOR Y., SULEM J., VARDOULAKIS I. (2009) *Meso-scale Shear Physics in Earthquake and Landslide Mechanics*, Taylor & Francis.

### Edition of special issues in journals

SULEM J. and PAPAMICHOS E, (2010) *Mathematical modelling in Geomechanics*, European Journal Environmental and Civil Engineering, vol 14, issue 8-9.

SULEM J. and LI X.L. (2014) *Thermo-Hydro-Mechanical Effects in Clay Host Rocks for Radioactive Waste Repositories*. Special Issue of Rock Mechanics and Rock Engineering, Springer, 47, 1.

SULEM J., STEFANO I., PAPAMICHOS E., VEVEAKIS E. (2016). *Modelling of instabilities and bifurcation in Geomechanics*. ALERT Geomaterials Doctoral school, [http://alertgeomaterials.eu/data/school/2016/2016\\_ALERT\\_schoolbook.pdf](http://alertgeomaterials.eu/data/school/2016/2016_ALERT_schoolbook.pdf).

SULEM J. and STEFANO I. (2018) *Special issue Geoproc 2017*. Rock Mechanics and Rock Engineering, Springer, 51, 10

### Journal papers and book chapters

SULEM J., PANET M. and GUENOT A., (1987). Closure analysis in deep tunnels. *International Journal of Rock Mechanics and Mining Sciences & Geomechanics Abstracts* 24(3), pp. 145-154.

SULEM J., PANET M. and GUENOT A., (1987). An analytical solution for time-dependent displacements in a circular tunnel. *International Journal of Rock Mechanics and Mining Sciences & Geomechanics Abstracts* 24(3), pp. 155-164.

VARDOULAKIS, I., SULEM, J. and GUENOT A.,(1988). Borehole instabilities as bifurcation phenomena. *International Journal of Rock Mechanics and Mining Sciences & Geomechanics Abstracts* 25(3), pp. 159-170.

SULEM J. and VARDOULAKIS I., (1990). Bifurcation analysis of the triaxial test on rock specimens. A theoretical model for shape and size effect. *Acta Mechanica* 83, pp. 195-212.

VARDOULAKIS I. and SULEM J., (1993). Application of bifurcation theory in rock mechanics problems. *Comprehensive Rock Engineering*, édité par J. Hudson, Pergamo Press vol. 1, chap. 23, pp 575-609.

SULEM J, VARDOULAKIS I. and PAPAMICHOS E. (1995). Microstructure and scale effect in granular rocks. *Continuum Models for Materials with Micro-Structure*, 201-237, (éd. H.-B. Mühlhaus), John Wiley.

A. PELLEGRINO, J. SULEM, G. BARLA (1997). The effect of slenderness and lubrication on the uniaxial behavior of a soft limestone. Technical note. *International Journal of Rock Mechanics and Mining Sciences*, Vol. 34, N°2, 333-340.

H.B. MÜHLHAUS, J. SULEM and P. UNTERREINER (1997). Discrete and Continuum Models for Dry Masonry Columns. Technical Note, *ASCE, Journal of Engineering Mechanics*, ASCE, Vol. 123 N°4, 399-403

J. SULEM and H.B. MÜHLHAUS, (1997). A continuum model for periodic two-dimensional block structures *Mechanics of Cohesive-Frictional Materials*, 2, 31-46.

J. SULEM. (1997). La localisation des déformations dans les sols et les roches comme phénomène de bifurcation. *Récents progrès en génie des procédés*, 159-172, Lavoisier

M. CERROLAZA, J. SULEM and A. EL BIED (1999). A Cosserat non-linear finite element analysis software for blocky structures. *J. Advances in Engineering Software*, 30, 69-83.

J. SULEM, I. VARDOULAKIS, E. PAPAMICHOS, A. OULAHNA and J. TRONVOLL, (1999). Elasto-plastic modelling of Red Wildmoor sandstone, *Mechanics of Cohesive-Frictional Materials*, 4, 215-245

J. SULEM (1999). Modèles continus pour matériaux à microstructure, *Actes du séminaire Descartes 1998-1999*, 17-32, Presse des Ponts et Chaussées

E. PAPAMICHOS, J. TRONVOLL, I. VAROULAKIS, J.F. LABUZ, A. SKJAERSTEIN, T.E. UNANDER, J. SULEM, (2000). Constitutive testing of Red Wildmoor sandstone, *Mechanics of Cohesive-Frictional Materials*, 5, 1-40.

J. SULEM, I. VARDOULAKIS and G. EXADAKTYLOS, (2001). Microstructural effects in stress concentration and fracture problems in rock mechanics, *Fracture Series on Nonlinear Fracture Mechanics and Damage Mechanics*, Ed. M.H. Aliabadi, WIT Press, UK, 161-199.

J. SULEM et M. CERROLAZA, (2001). Modèles continus pour les structures rocheuses discontinues, *Revue française de Géotechnique*, 97, 41-51.

J. SULEM and M. CERROLAZA, (2002). Finite element analysis of the indentation test on rocks with microstructure, *Computers and Geotechnics*, 29, 2, 95-117

A. EL BIED, J. SULEM and F. MARTINEAU, (2002). Microstructure of shear zones in Fontainebleau sandstone. *International Journal of Rock Mechanics and Mining Sciences*, 39, 7, 917-932.

- J. SULEM (2002). Some applications of higher order continuum theories in rock mechanics. *Journal of the Mechanical Behavior of Materials*. 13, 3-4, 195-218.
- A. EL BIED et J. SULEM (2003). Adaptation du mode opératoire pour la réalisation d'essais en compression « vraie » sur les roches. *Revue française de Géotechnique*, vol. 103, 43-60.
- J. SULEM, I. VARDOULAKIS , H. OUFFROUKH, M. BOULON and J. HANS, (2004) Experimental characterization of the thermo-poro-mechanical properties of the Aegion fault gouge, *Comptes Rendus à l'Académie des Sciences, Geosciences*, 336, 455-466.
- J. SULEM, I. VARDOULAKIS , H. OUFFROUKH, V. PERDIKATSI (2005) Thermo-poro-mechanical Properties of the Aigion Fault Clayey Gouge - Application to the Analysis of Shear Heating and Fluid Pressurization, *Soils and foundations* 45,2, 97-108
- J. SULEM, H. OUFFROUKH (2006) Hydromechanical behaviour of Fontainebleau sandstone, *Rock Mechanics and Rock Engineering*, 39, 3, 185-213
- J. SULEM, H. OUFFROUKH (2006) Shear banding in drained and undrained triaxial tests on a saturated sandstone: Porosity and permeability evolution, *International Journal of Rock Mechanics and Mining Sciences* 43, 2, 292-310.
- J. SULEM, P. LAZAR, I. VARDOULAKIS (2007) Thermo-poro-mechanical properties of clayey gouge and application to rapid shearing, *International Journal of Numerical and Analytical Methods in Geomechanics*, 31 523-540.
- J. SULEM (2007) Stress orientation evaluated from strain localisation analysis in Aigion fault, *Tectonophysics*, 442, 3-13.
- S. GHABEZLOO, J. SULEM (2009) Stress dependent thermal pressurization of a fluid-saturated rock, *Rock Mechanics and Rock Engineering*, DOI 10.1007/s00603-008-0165-z, 42: 1–24.
- I. STEFANO, J. SULEM, I. VARDOULAKIS (2008) Three-dimensional Cosserat homogenization of masonry structures: elasticity, *Acta Geotechnica*, 3:71–83.
- A. CORFDIR, J. SULEM (2008) Comparison of extension and compression triaxial tests for dense sand and sandstone, *Acta Geotechnica*, 3:241–246.
- S. GHABEZLOO, J. SULEM, S. GUÉDON, F. MARTINEAU, J. SAINT-MARC (2008) Poromechanical behaviour of hardened cement paste under isotropic loading, *Cement and Concrete Research*, Volume 38, 12, 1424-1437.
- S. GHABEZLOO, J. SULEM, S. GUÉDON, F. MARTINEAU (2009) Effective stress law for the permeability of a limestone, *International Journal of Rock Mechanics and Mining Sciences*, doi:10.1016/j.ijrmms.2008.05.006, Volume 46, Issue 2, February 2009, Pages 297-306.

S. GHABEZLOO, J. SULEM, J. SAINT-MARC (2009) Evaluation of permeability-porosity relationship in a low permeability creeping material using a single transient test, *International Journal of Rock Mechanics and Mining Sciences*, doi:10.1016/j.ijrmms.2008.10.003, 46, 4, 761–768.

S. GHABEZLOO, J. SULEM, J. SAINT-MARC (2009) The effect of undrained heating on a fluid-saturated hardened cement paste, *Cement and Concrete Research*, doi:10.1016/j.cemconres.2008.09.004, 39, 1, 54-64.

J. SULEM, V. FAMIN (2009) Thermal decomposition of carbonates in fault zones: slip-weakening and temperature limiting effects, *Journal of Geophysical Research*, 114, B03309, doi:10.1029/2008JB006004.

J. SULEM (2009) Multiphysics aspects of seismic slip, *European Journal of Environmental and Civil Engineering*, Vol. 13, 7-8, 889-910.

J. SULEM, V. FAMIN, H. NODA (2009) A correction to “ Thermal decomposition of carbonates in fault zones: slip-weakening and temperature limiting effects”, *Journal of Geophysical Research*, 114, B06311, doi:10.1029/2009JB006576

J. SULEM, V. FAMIN (2009) The effect of mineral decomposition as a mechanism of fault weakening during seismic slip, in: *Meso-scale Shear Physics in Earthquake and Landslide Mechanics*, Eds. Y. Hatzor, J. Sulem, I. Vardoulakis, Taylor & Francis.

S. GHABEZLOO, J. SULEM, (2010) Effect of the volume of the drainage system on the measurement of undrained thermo-poro-elastic parameters *International Journal of Rock Mechanics and Mining Sciences*, 47, 60-68, doi:10.1016/j.ijrmms.2009.03.001.

S. GHABEZLOO, J. SULEM (2010) Temperature induced pore fluid pressurization in geomaterials, *Italian Geotechnical Journal*, 1/2010, 29-43.

I. STEFANO, J. SULEM, I. VARDOULAKIS (2010) Homogenization of interlocking masonry structures using a generalized differential expansion technique. *International Journal Solids and Structures*. 47 1522-1536  
doi:10.1016/j.ijsolstr.2010.02.011

J. SULEM (2010) Bifurcation theory and localization phenomena, *European Journal of Environmental and Civil Engineering*, Vol. 14, 8-9, 989-1009.

I STEFANO, J. SULEM (2010) Continuum modeling of discontinuous rock structures - Homogenization of discrete particle assemblies, *European Journal of Environmental and Civil Engineering*, Vol. 14, 8-9, 1199-1217.

J. SULEM, M. MONFARED, A.-M. TANG, P. DELAGE (2010) Thermo-mechanical behaviour of clayey rocks for application to nuclear waste disposal storage. In: MIR 2010, Problemi di stabilità nelle opere geotecniche, Chapitre 5, Edts (G. & M. Barla)

J. SULEM, I. STEFANO, E. VEVEAKIS (2011) Stability analysis of undrained adiabatic shearing of a rock layer with Cosserat microstructure. *Granular matter*, 13, 3, 261-268, doi 10.1007/s10035-010-0244-1.

N. BRANTUT, J. SULEM, A. SCHUBNEL (2011) Effect of dehydration reactions on earthquake nucleation: Stable sliding, slow transients and unstable slip. *Journal of Geophysical Research* 116, B05304, doi:10.1029/2010JB007876

M. MONFARED, P. DELAGE, J. SULEM, M. MOHAJERANI, A.M. TANG, E. DE LAURE (2011) A new cylinder triaxial cell to study the behaviour of geomaterials with low permeability, *International Journal of Rock Mechanics and Mining Sciences*, 48 pp. 637-649, doi:10.1016/j.ijrmms.2011.02.017.

I. STEFANO, J. SULEM (2011) Three-dimensional Cosserat continuum modeling of fractured rock masses, *J. Multiscale modelling*, Vol. 2, Nos. 3 & 4, 217–234, Imperial College Press, DOI: 10.1142/S1756973710000424.

M. MOHAJERANI, P. DELAGE, M. MONFARED, A.M. TANG, J. SULEM, B. GATMIRI (2011) Oedometric compression and swelling behaviour of the Callovo-Oxfordian Argillite, *International Journal of Rock Mechanics and Mining Sciences*, 48 pp. 606-615, doi:10.1016/j.ijrmms.2011.02.016

M. VEVEAKIS, J. SULEM, I. STEFANO (2012) Analysis of rock layers with Cosserat microstructure: Influence of thermal pressurization and chemical decomposition as weakening mechanisms. *J. Struct. Geology*, 38, 254-264, doi:10.1016/j.jsg.2011.09.012.

G. KOVAL, F CHEVOIR, · J-N ROUX · J SULEM · A CORFDIR (2011) Interface roughness effect on slow cyclic annular shear of granular materials. *Granular Matter*, Volume 13, Number 5, 525-540, DOI: 10.1007/s10035-011-0267-2.

M. MONFARED, J. SULEM, P. DELAGE, M. MOHAJERANI (2011) A laboratory investigation on thermal properties of the Opalinus claystone, *Rock Mech & Rock Eng.* Volume 44, Number 6, 735-747 , DOI: 10.1007/s00603-011-0171-4

I. STEFANO, J. SULEM (2012) Micromorphic Continua: application to the homogenization of diatomic masonry columns, *Int. J. for Multiscale Computational Engineering*, 10(6), p. 599-613, DOI: 10.1615/IntJMultCompEng.2012004076 (in press)

M. MONFARED, J. SULEM, P. DELAGE, M. MOHAJERANI (2012) On the THM behaviour of a sheared Boom clay sample: application to the behaviour and sealing properties of the EDZ, *J. Eng. Geol.* , Volume 124, 47-58, doi:10.1016/j.enggeo.2011.10.002

M. MOHAJERANI, P. DELAGE, J. SULEM, M. MONFARED, A.M. TANG, B. GATMIRI (2012) A laboratory investigation of thermally induced pore pressures in the Callovo-Oxfordian Claystone, *International Journal of Rock Mechanics and Mining Sciences*, doi:10.1016/j.ijrmms.2012.02.012, Volume 52, 112–121.

N. BRANTUT, J. SULEM (2012) Strain Localisation and Slip Instability in a Strain-Rate Hardening, Chemically Weakening Material. *Journal of Applied Mechanics*, 79, 031004. DOI: 10.1115/1.4005880

VU M.H, SULEM J., GHABEZLOO S., LAUDET J.B., GARNIER A., GUÉDON S. (2012) Time-dependent behaviour of hardened cement paste under isotropic loading, *Cement and Concrete Research*, 42, 789-797, doi:10.1016/j.cemconres.2012.03.002.

VU M.H, SULEM J., LAUDET J.B., (2012) Effect of the curing temperature on the creep of a hardened cement paste, *Cement and Concrete Research*, 42, 1233-1241.

SULEM J., (2012) Shear localization in deep geological layers during seismic slip, in: *Adiabatic Shear Localization, Second Edition: Frontiers and Advances*, B. Dodd & Y. Bai (Eds), 397-423, Elsevier.

GASC-BARBIER M., HOANG T. T. N., MARACHE A., SULEM J., RISS J. (2012), Morphological and mechanical analysis of natural marble joints submitted to shear tests, *Journal of Rock Mechanics and Geotechnical Engineering*. 4 (4): 296-311.

VU T.M., SULEM J., SUBRIN D., MONIN N., LASCOLS J. (2013) Anisotropic closure in squeezing rocks : the example of Saint-Martin-la-Porte access gallery, *Rock Mechanics and Rock Engineering*, 46, 2, 231-246, DOI 10.1007/s00603-012-0320-4

VU T.M., SULEM J., SUBRIN D., MONIN N.(2013) Semi-analytical solution for stresses and displacements in a tunnel excavated in transversely isotropic formation with non linear behaviour, *Rock Mechanics and Rock Engineering*, 46,2, 213-229, DOI 10.1007/s00603-012-0296-0

BOIS, A.-P., VU, M.-H., GHABEZLOO, S., SULEM, J., GARNIER, A., & LAUDET, J.-B. (2013). Cement Sheath Integrity for CO<sub>2</sub> Storage – An Integrated Perspective. *Energy Procedia*, 37(null), 5628–5641. doi:10.1016/j.egypro.2013.06.485

VEVEAKIS M., STEFANO I., SULEM J. (2013) Failure in shear bands for granular materials: thermo-hydro-chemo-mechanical effects, *Geotechnique Letters*, Vol. 3, 31-36, DOI: 10.1680/geolett.12.00063

SULEM J. (2013) Tunnel du Fréjus: Mesures géotechniques et interprétation, *Manuel de Mécanique des Roches* Tome IV, chap. 7, Presse des Mines.

FEIA S., GHABEZLOO S., BRUCHON J-F, SULEM J., CANOU J., DUPLA J-C (2014) Evaluation of the pore access size distribution of sands by tensiometric method, *Geotechnical Testing Journal*, 37, 4. Doi: 10.1520/GTJ20130126

MONFARED M., SULEM J., DELAGE P., MOHAJERANI M., MENACEUR H. (2014) Thermal impact on the permeability of a claystone, *Rock Mechanics and Rock Engineering*, 47,1, 101-110, DOI 10.1007/s00603-013-0459-7.

MOHAJERANI M., DELAGE P., SULEM J., MONFARED M., TANG A.M., GATMIRI B. (2014) The thermal volume changes of the Callovo-Oxfordian claystone, *Rock Mechanics and Rock Engineering*, 47, 1, 131-142, 10.1007/s00603-013-0369-8.

STEFANOU I., SULEM J. (2014) Chemically induced compaction bands in geomaterials, *Journal of Geophysical Research: Solid Earth*, 119, 2, 880-899. doi:10.1002/2013JB010342.

FEIA S., SULEM J., CANOU, J., GHABEZLOO S., CLAIN X. (2014). Changes in permeability of sand during triaxial loading: effect of fine particles production, *Acta Geotechnica*, DOI 10.1007/s11440-014-0351-y.

SULEM J., TRAN MANH H. (2014) Tunnels in squeezing ground: Modelling of time-dependent anisotropic deformation. In: MIR 2014, Interventi ed opere nelle formazioni complesse, Chapitre 7, Ed (G. Barla), 135-155.

ROHMER, J., ALLANIC, C., BOURGINE, B., SULEM, J., SUHETT-HELMER, G., GHABEZLOO, S., POUYA A., RENARD, F., BEUCHER, H., MEHL, C., SIAVELIS M., TARDIEU, N. (2014). Improving our knowledge on the hydro-chemo-mechanical behaviour of fault zones in the context of CO<sub>2</sub> geological storage. *Energy Procedia*, 63, 3371–3378. doi:10.1016/j.egypro.2014.11.366

GODIO M., STEFANOU I., SAB K., SULEM J. (2015). Dynamic Finite Element Formulation for Cosserat Elastic Plates. *International Journal for Numerical Methods in Engineering*, Volume: 101, Issue: 13 Pages: 992-1018, DOI: 10.1002/nme.4833.

TRAN MANH .H., SULEM J., SUBRIN D. (2015) Closed-form solution for tunnels with arbitrary cross section excavated in elastic anisotropic ground, *Rock Mechanics and Rock Engineering*, 48, 1, 277-288, DOI 10.1007/s00603-013-0542-0.

TRAN MANH .H., SULEM J., SUBRIN D., BILLAUX D. (2015) Anisotropic time-dependent modeling of tunnels in squeezing ground, *Rock Mechanics and Rock Engineering*, 48, 6, 2301-2317. DOI: 10.1007/s00603-015-0717-y

TRAN MANH H., SULEM J., SUBRIN D. (2015) Interaction of circular tunnels in anisotropic elastic ground, *Géotechnique*, doi: 10.1680/geot.14.P.178.

FEIA S., DUPLA J.C., GHABEZLOO S., SULEM J., CANOU J., ONAISI A., LESCANNE H., AUBRY E. (2015) Experimental investigation of particle suspension injection and permeability impairment in porous media, *Geomechanics for Energy and the Environment*, 3, 24-39.

SULEM J., STEFANOU I. (2016) Thermal and chemical effects in shear and compaction bands, *Geomechanics for Energy and the Environment*, 6, 4-21, doi:10.1016/j.gete.2015.12.004.

STEFANO I., SULEM J. (2016) Existence of a threshold for brittle grains crushing strength: two- versus three-parameter Weibull distribution fitting, *Granular Matter*, 18:2. 1-10, doi:10.1007/s10035-015-0603-z.

GUAYACAN-CARRILLO L.-M., SULEM J., SEYEDI D., GHABEZLOO S., NOIRET A, ARMAND G. (2016) Convergence analysis of an unsupported micro-tunnel at the Meuse/Haute-Marne underground research laboratory, *Geological Society of London Special Publication*, <https://doi.org/10.1144/SP443.24>.

GUAYACAN-CARRILLO L.-M., SULEM J., SEYEDI D., GHABEZLOO S., NOIRET A, ARMAND G. (2016) Analysis of long-term anisotropic convergence in drifts excavated in Callovo-Oxfordian claystone, *Rock Mechanics and Rock Engineering*, 49, 1, 97-114, doi: 10.1007/s00603-015-0737-7.

GODIO M., STEFANO I., SAB K., SULEM J. (2016). Multisurface plasticity for Cosserat materials: plate element implementation and validation. *International Journal for Numerical Methods in Engineering*, 108: 456-484. doi: 10.1002/nme.5219.

TRAN MANH H., SULEM J., SUBRIN D. (2016) Progressive degradation of rock properties and time-dependent of deep tunnels, *Acta Geotechnica*, 11, 693-711, DOI: 10.1007/s11440-016-0444-x

JANSSEN C., WENK H.-R., WIRTH R., MORALES L., KEMNITZ H., SULEM J., DRESEN G. (2016). Microstructures and their implications for faulting processes – Insights from DGLab core samples from the Gulf of Corinth. *J. Struct. Geol.*, vol. 86, pp. 62–74.

SULEM J. (2016). Material instability and strain localization analysis. In: *Modelling of instabilities and bifurcation in Geomechanics*. Eds: J. Sulem, I. Stefanou, E. Papamichos, E. Veveakis, ALERT Geomaterials Doctoral school, 69-85, [http://alertgeomaterials.eu/data/school/2016/2016\\_ALERT\\_schoolbook.pdf](http://alertgeomaterials.eu/data/school/2016/2016_ALERT_schoolbook.pdf).

SULEM J., STEFANO I. (2016). Multiphysics couplings and strain localization in geomaterials. In: *Modelling of instabilities and bifurcation in Geomechanics*. Eds: J. Sulem, I. Stefanou, E. Papamichos, E. Veveakis, ALERT Geomaterials Doctoral school, 188-213, [http://alertgeomaterials.eu/data/school/2016/2016\\_ALERT\\_schoolbook.pdf](http://alertgeomaterials.eu/data/school/2016/2016_ALERT_schoolbook.pdf).

FEIA S., DUPLA J.C., GHABEZLOO S., CANOU J., SULEM J., MAINGUY M., AUBRY E. (2017). An experimental setup with radial injection for investigation of transport and deposition of suspended particles in porous media. *Geotechnical Testing Journal*. Vol. 40,6, pp. 1115-1124, doi: 10.1520/GTJ20160032.

STEFANO I., SULEM J., RATTEZ H. (2017). Cosserat approach to localisation in geomaterials. In: *Handbook of Nonlocal Continuum Mechanics for Materials and Structures*, Ed. G. Voyiadjis, ISBN 978-3-319-58729-5, Springer



GUAYACAN-CARRILLO L.-M., GHABEZLOO S., SULEM J., SEYEDI D., ARMAND G. (2017) Tunnel excavation in low-permeability anisotropic ground: Effect of anisotropy and hydro-mechanical couplings on pore pressure evolution. *Int. J. Rock Mech. Min. Sci.* 97, 1-14.

BRANTUT N., STEFANO I., SULEM J. (2017) Dehydration-induced instabilities at intermediate depths in subduction zones *J. Geoph. Res.* 10.1002/2017JB014357.

GODIO M., STEFANO I., SAB K., SULEM J., S. SAKJI (2017). A limit analysis approach based on Cosserat continuum for the evaluation of the in-plane strength of discrete media: Application to masonry, *European Journal of Mechanics - A/Solids*, 66, 168-192, doi.org/10.1016/j.euromechsol.2017.06.011.

BAHAFID S., DUC M., GHABEZLOO S., FAURE P., SULEM J. (2017) Effect of the hydration temperature on the microstructure of Class G cement: C-S-H composition and density. *Cement and Concrete Research*, 95, 270–281.

EINAV I., ROGNON P., MILLER T., SULEM J. (2018). Faults get colder through transient granular vortices, *Geoph. Res. Lett.* DOI: 10.1002/2017GL076029 (in print).

BAHAFID S., GHABEZLOO S., FAURE P., SULEM J., DUC M. (2018) Effect of the hydration temperature on the pore structure of cement paste: Experimental investigation and micromechanical modelling, *Concrete and Cement Research*, 10.1016/j.cemconres.2018.06.014

GUAYACAN-CARRILLO L.-M., SULEM J., SEYEDI D., GHABEZLOO S., ARMAND G. (2018) Size effect on the time-dependent closure of drifts excavated in Callovo-Oxfordian claystone. *International Journal of Geomechanics ASCE*, 18, 10, DOI: 10.1061/(ASCE)GM.19435622.0001213.

RATTEZ H., STEFANO I., SULEM J. (2018). The importance of Thermo-Hydro-Mechanical couplings and microstructure to strain localization in 3D continua with application to seismic faults. Part I: Theory and Linear Stability Analysis. *Journal of Mechanics and Physics of Solids*, 15, 54-76, <https://doi.org/10.1016/j.jmps.2018.03.004>

RATTEZ H., STEFANO I., SULEM J., VEVEAKIS M., POULET T. (2018). The importance of Thermo-Hydro-Mechanical couplings and microstructure to strain localization in 3D continua with application to seismic faults. Part II: Numerical implementation and post-bifurcation analysis. *Journal of Mechanics and Physics of Solids*, 115, 1-29, <https://doi.org/10.1016/j.jmps.2018.03.003>.

RATTEZ H., STEFANO I., SULEM J., VEVEAKIS M., POULET T. (2018). Numerical analysis of strain localization in Rocks with Thermo-Hydro-Mechanical couplings using Cosserat continuum. *Rock Mechanics and Rock Engineering* 51(10), 3295–3311. <https://doi.org/10.1007/s00603-018-1529-7>

BRAUN P., GHABEZLOO S., DELAGE P., SULEM J., CONIL N. (2018). Theoretical Analysis of Pore Pressure Diffusion in Some Basic Rock Mechanics Experiments. *Rock Mechanics and Rock Engineering*, <https://doi.org/10.1007/s00603-018-1410-8>.

AGOFACK, N., GHABEZLOO, S., SULEM, J., GARNIER, A., & URBANCZYK, C. (2019). Onset of Creation of Residual Strain during the hydration of oil-well cement paste. *Cement and Concrete Research*, 116(March 2018), 27–37. <https://doi.org/10.1016/j.cemconres.2018.10.022>

DE LA FUENTE, M., TAHERZADEH, R., SULEM, J., NGUYEN, X-S, SUBRIN, D. (2018) Applicability of the convergence-confinement method to full-face excavation of circular tunnels with stiff support system, *Rock Mechanics and Rock Engineering* DOI : 10.1007/s00603-018-1694-8

LOVERA, A., GHABEZLOO, S. SULEM, J., RANDOLPH, M.F., KHAM, M., PALIX, E. (2018), Pile response to multi-directional lateral loading using P-y curves approach, *Géotechnique*, (under review).

DE LA FUENTE, M., SULEM, J., TAHERZADEH, R., SUBRIN, D. (2019) Tunneling in squeezing ground: effect of the excavation method, *Rock Mechanics and Rock Engineering* (under review)

## Proceedings

GUENOT A., PANET M. and SULEM J., (1985). A new aspect in tunnel closure interpretation. *26th U.S. Symposium on Rock Mechanics*. Rapid city, South Dakota, USA. Ed. E. Ashworth, Balkema, pp. 455-460.

SULEM J. et LECA E. (1987). Prise en compte des effets différés dans l'application de la méthode convergence-confinement. *Colloque International "Interaction Sols-Structures"*. Ecole Nationale des Ponts et Chaussées, Paris, France, pp 469-475.

SULEM, J. and VARDOULAKIS, I., (1988). A new approach to borehole stability based on bifurcation theory. *6th International Conference on Numerical Methods in Geomechanics*, Innsbruck, Autriche, ed. G. Swoboda, Balkema, vol. 3, pp. 1929-1935.

SULEM, J. and VARDOULAKIS, I., (1988). Bifurcation analysis of the triaxial test on rock specimens. *France-USA Workshop on Strain Localization and Size Effect due to Cracking and Damage*. ENS Cachan, France, Ed. J. Mazars et Z.P. Bazant, Elsevier, pp. 308-322.

SULEM J., and VARDOULAKIS I., (1989). Simplified bifurcation analysis of deep boreholes in rock with microstructures. *Symposium International "Rock at Great Depth"*, Pau, France, Ed. V. Maury & D. Fourmaintraux, Balkema, vol.2, pp. 845-852.

VARDOULAKIS I. and SULEM J., (1991). Size effect and microstructure in granular rocks. *Proc. 3rd Int. Conf. on Constitutive Laws for Engineering Material*, Tucson, Arizona, ASME Press, pp. 475-478

SULEM J., ORD A. and VARDOULAKIS I. (1992) Shear Band formation in Sandstone. *Computer Methods and Advances in Geomechanics*, Ed. Beer, Booker and Carter, Balkema, pp. 1731-1735.

SULEM J. (1992) Bifurcation phenomena in Rock Mechanics, *4° ciclo di conferenze di Meccanica e Ingegneria delle Rocce Politecnico di Torino*, Italie. Ed G. Barla, pp. 9.1 à 9.11.

VARDOULAKIS I., SULEM J. and MUHLHAUS H. B. (1992) Internal buckling instabilities in a fluid saturated layered rock. *Comptes rendus du 18ème Congrès de Mécanique Théorique et Appliquée*, Haïfa, Israël, Elsevier.

SULEM J., VARDOULAKIS I. and PAPAMICHOS E. (1993) Shear band prediction in sandstone. *Int. Symp. Hard soils - Soft Rocks*, Athens, Ed. A. Anagnostopoulos, F. Schlosser, N. Kalteziotis, R. Frank, Balkema, vol 2, pp. 1663-1669.

UNTERREINER P., VARDOULAKIS I., SULEM J., BOULON M. (1993). Essential features of a Cosserat continuum in interfacial localisation. *3rd. International Workshop on Localisation and Bifurcation Theory in Soils and Rocks*, Aussois, France, (ed. J. Chambon, J. Desrues, I. Vardoulakis), Balkema, 141-154.

PAPAMICHOS E., VARDOULAKIS I., SULEM J (1994). Generalized continuum models for borehole stability analysis. *EUROCK '94, Rock Mechanics in Petroleum Engineering*, Delft, Août 1994, 37-44, Balkema.

PELLEGRINO A., SULEM J. and BARLA G. (1994). Non-linear effects in the study of borehole stability. *EUROCK '94, Rock Mechanics in Petroleum Engineering*, Delft, August 1994, 231-238, Balkema.

VARDOULAKIS I., PAPAMICHOS E., SULEM J. (1994). A second-gradient plasticity model for granular rocks. *Europe-US. Workshop on Fracture and Damage in Quasibrittle Structures*. Prague, Septembre 1994, Ed. Z. Bazant, Z. Bittnar, M. Jirasek, J. Mazars, 99-111, E & FN Spon.

SULEM J. (1994) Analytical methods for the study of tunnel deformation during excavation. *5° ciclo di conferenze di Meccanica e Ingegneria delle Rocce Politecnico di Torino*, Italie. Ed G. Barla, 3.1-3.17.

BARLA G. and SULEM J. (1995). Pressure sensitivity of chalk: Experimental evidence and constitutive modeling *Colloquium Mundatum Chalk and Shales, GBMR*, Bruxelles, pp. 1.2.11-1.2.20..

PELLEGRINO A. et SULEM J. (1995) Anisotropie induite et endommagement dans les roches, Colloque annuel GEO, Aussois.

PELLEGRINO A., SULEM J. and BARLA G. (1996). Effect of induced anisotropy on the strength and deformation behavior of two sedimentary rocks. *EUROCK '96, Prediction and performance on rock mechanics and rock engineering* (ed. G. Barla), Balkema, Vol. 1, 205-212.

SULEM J. and MUHLHAUS H.B. A Cosserat continuum model for blocky rock under dynamic loading. *EUROCK '96, Prediction and performance on rock mechanics and rock engineering*, (ed. G. Barla), Balkema, Vol. 1, .359-366

VARDOULAKIS I., SULEM J., OULAHNA A., PAPAMICHOS E., T.E. UNANDER and J. TRONVOLL. (1996) Elasto-plastic behavior of a weak sandstone. *EUROCK '96, Prediction and performance on rock mechanics and rock engineering*, (ed. G. Barla), Balkema, Vol. 1, 189-196.

PAPAMICHOS E., TRONVOLL J., SKJÆSTEIN, T.E. UNANDER, I. VARDOULAKIS and J. SULEM (1996) The effect of plane-strain and isotropic loading in hollow-cylinder strength. *EUROCK '96, Prediction and performance on rock mechanics and rock engineering*, (ed. G. Barla), Balkema, Vol. 1, 197-204.

J. SULEM, M. CERROLAZA, A. EL BIED (1998). Numerical analysis of masonry structures with an homogenised cosserat continuum model. In: *Computer Methods in Structural Masonry - 4* (ed. G. N. Pande, J. Middleton and B. Kralj), E & FN Spon, pp 85-93.

J. SULEM (1998) Continuous models for discontinuous rock masses. *IV International Congress on Numerical Methods in Engineering and Applied Sciences, 17-20 March, Ciudad Guayana, Venezuela*, (ed. O. Prado, M. Rao, M. Cerrolaza), 71-80.

J. SULEM, I. VARDOULAKIS (1998) Microstructure and scale effect in rock hardness tests. *2<sup>nd</sup>. International Symposium on Hard Soils and Soft Rocks*, 12-14 October, Naples, (ed. A. Evangelista, L. Picarelli), Vol. 2, 881-888, Balkema.

A. ELBIED, J. SULEM (1999) Effet de la lubrification dans l'essai triaxial sur les roches. *2<sup>ème</sup> Congrès Universitaire de Génie Civil*. 6-7 Mai 1999, Poitiers, (ed. AUGC), Vol.1, 209-216.

J. SULEM, M. CERROLAZA (1999) Finite element analysis of the indentation test on rocks with microstructure. *International Conference on Fracture and Damage Mech.* Edited by M.H.Aliabadi, Queen Mary and Westfield College, London, 27-29 July 1999, pp. 413-422.

J. SULEM (1999) Analysis of scale effect in rock indentation tests with higher order continuum theories. In: *Mechanics of Heterogeneous Materials*, 21-22 June 1999, Grenoble

J. SULEM (2000) Modélisation des structures de maçonnerie par un milieu continu équivalent de Cosserat, In: *Approches multiéchelles pour les matériaux et les structures du génie civil*, Ed. K. Sab, Journées scientifiques du LCPC, 7-8 Juin 2000, Nantes, pp. 107-119.

- J. SULEM and M. CERROLAZA, (2000) Slope stability in blocky rock, *GeoEng2000*, 19-24 November 2000, Melbourne, Australia
- J. SULEM, (2001) Microstructural effects in contact problems in rock mechanics; *6<sup>th</sup> National Congress on Mechanics*, 19-21 July 2001, Thessalokiki, Greece.
- J. SULEM and V. DE GENNARO, (2001). Constitutive modeling of soil and rock interacting with interfaces. *Workshop on constitutive and centrifuge geotechnical modelling*, 8-13 July 2001, Ascona, Switzerland.
- M. CERROLAZA and J. SULEM, (2001). Some advances in the numerical simulation of rock microstructure behaviour using Cosserat elasto-plasticity. *CERMES 21, Actes de la journée scientifique internationale des 21 ans du CERMES*, (ed. V. De Gennaro et al), 21 Sept. 2001, Champs-sur-Marne, France, 83-105.
- V. DE GENNARO, J. SULEM and M. CERROLAZA, (2002). Numerical analysis of toppling failures in jointed rock slopes. *8<sup>th</sup> International Symposium on Numerical Models in Geomechanics*, (Pande, G.N. & Pietruszczak, S. (eds)): Rome (Italy), 10 - 12 April 2002, 197-203.
- J. SULEM, M. CERROLAZA, B. AMMIAR (2002) Numerical analysis of the role of microstructure for contact problems in rock mechanics. *5<sup>th</sup> European Conference on Numerical Methods in Geotechnical Engineering*, (Ed. Ph. Mestat), Presses de l'Ecole Nationale des Ponts et Chaussées, 4-5 September, Paris, France, 149-153.
- J. SULEM, V. DE GENNARO, M. CERROLAZA (2002) Continuum models with microstructure for discontinuous rock mass. In : *Stability of Rock Structures – Proceedings of the 5th International Conference on Analysis of Discontinuous Deformation*, Hatzor, Y.H. (ed), 6-10 October, 2002, Ben Gurion University, Beer-Sheva, Israel, 215-223.
- DE GENNARO V. , SULEM J. (2003) Strain localization in interface ring simple shear tests on granular materials. *Proc. Int. Workshop 3x4: Constitutive Modelling and Analysis of Boundary Value Problems in Geotechnical Engineering*, Napoli (Italie), 283-307.
- I. VARDOULAKIS, J. SULEM and H. OUFFROUKH (2003) Thermo-poro-mechanical properties of the Aegion fault clayey gouge; Application to the analysis of rapid shearing, In: *Proceedings of the International Workshop on Prediction and Simulation Methods in Geomechanics*, eds : F. Oka, I. Vardoulakis, A. Murakami & T. Kodaka, 14-15 October, 2003, Athens, Greece 197-200.
- J. SULEM (2004) Quelques exemples d'applications des milieux continus généralisés en géomécanique. *Colloque National Mecamat*, Aussois 2004, pp. 241-249.
- J. SULEM, I. VARDOULAKIS and P. LAZAR (2005): Material properties of fault gouge and implications for seismic slip, *11th International Conference IACMAG*, Turin, Italie, 19-24 Juin 2005, Vol. 3, 337-344.

J. SULEM and H. OUFFROUKH (2005): Microstructure and permeability of shear zones in granular rocks. *11<sup>th</sup> International Conference IACMAG*, Turin, Italie, 19-24 Juin 2005, . 2, 293-300.

V. DE GENNARO and J. SULEM (2005): Analysis of strain localization in soil-structure interaction problems. *11th International Conference IACMAG*, Turin, Italie, 19-24 Juin 2005, Vol. 3, 635-642.

J. SULEM, B. GATMIRI, L. DORMIEUX (2005): Analytical solutions in Geomechanics. Is ther a role?. *Issue paper in Proc. 11th International Conference IACMAG*, Turin, Italie, 19-24 Juin 2005, Vol. 4, 187-196.

J. SULEM, H. OUFFROUKH (2005): Etude expérimentale de l'évolution de la microstructure, de l'endommagement et de la perméabilité des zones de cisaillement dans les roches granulaires. *Colloque 'Microstructure et propriétés des matériaux'*, École Nationale des Ponts et Chaussées, 17-18 mars 2005, 291-296.

I. STEFANO, J. SULEM, I. VARDOULAKIS (2006) : Continuum modelling of masonry structures under static and dynamic loading, *Proc. 16th European Conference of Fracture, Symposium on fracture and failure of natural building stones*, 2-6 July, Alexandroupolis, Greece, Ed: S.K. Kourkoulis, Springer, Doordrecht, the Netherlands, 123-136

J SULEM (2006) Stress orientation evaluation from mechanical characterization of fault gouge, *European Geosciences Union General Assembly, Vienna*, 2-7 April, *Geophysical Research Abstracts*, Vol. 8, 10815.

J SULEM (2007) The role of clay in thermal pressurisation of fault during rapid slip, *European Geosciences Union General Assembly, Vienna*, 16-20 April, *Geophysical Research Abstracts*, Vol. 9, 01627.

E. VEVEAKIS, I. VARDOULAKIS, J. SULEM (2007) Thermally driven accelerated creep of shallow faults, *European Geosciences Union General Assembly, Vienna*, 16-20 April, *Geophysical Research Abstracts*, Vol. 9, 06715.

S. GHABEZLOO, J. SULEM (2007) Pressurisation thermique d'une roche saturée, *Congrès Français de Mécanique*, 27-31 Août, Grenoble.

I. STEFANO, J. SULEM, I. VARDOULAKIS (2007) Three - dimensional Continuum Modeling of Masonry Structures Application to the SE/E Corner of the Acropolis wall of Athens, *11<sup>th</sup> Congress of the International Society of Rock Mechanics*, 9-13 Juillet, Lisbonne, Ed. L. Ribeiro e Sousa, C. Olalla, N. F. Grossmann, Balkema, Vol. 1, 503-508.

S. GHABEZLOO, J. SULEM (2008) Thermal pressurization of a fluid-saturated granular rock, *European Geosciences Union General Assembly, Vienna*, 14-18 April, *Geophysical Research Abstracts* Vol. 10, 02790.

S. GHABEZLOO, J. SULEM, S. GUÉDON, F. MARTINEAU (2008) Effective stress law for the permeability of a limestone: experimental study and microstructural modelling, *European Geosciences Union General Assembly*, Vienna, 14-18 April, *Geophysical Research Abstracts* Vol. 10, 02479.

J. SULEM, V. FAMIN (2008) Thermal decomposition of carbonates and fluid pressurisation during seismic slip, *European Geosciences Union General Assembly*, Vienna, 14-18 April, *Geophysical Research Abstracts* Vol. 10, 09599.

S. GHABEZLOO, J. SULEM, S. GUEDON, F. MARTINEAU (2008) Effet des contraintes sur la perméabilité d'un calcaire oolitique en relation avec sa microstructure *Journées Nationales de Géotechnique et de Géologie de l'Ingénieur JNGG'08* - Nantes, 18-20 juin 2008, 531-538.

S. GHABEZLOO, J. SULEM, J. SAINT-MARC (2008) Thermal pressurization and anomalous thermal expansion of the pore fluid of a hardened cement paste, *3<sup>rd</sup> W(H)YDOC Workshop*, Ecole Nationale des Ponts et Chaussées, 19-21 Novembre.

I. STEFANOPOULOS, J. SULEM, I. VARDOULAKIS (2008) Homogenization of interlocking masonry walls *3<sup>rd</sup> W(H)YDOC Workshop*, Ecole Nationale des Ponts et Chaussées, 19-21 Novembre.

J. SULEM, V. FAMIN (2009) Mineral decomposition during seismic slip: slip-weakening of fault zones and temperature-limiting effects, *European Geosciences Union General Assembly*, Vienna, 19-24 April, *Geophysical Research Abstracts* Vol. 11, EGU2009-6931-1.

S. GHABEZLOO, J. SULEM, AND J. SAINT-MARC (2009) Undrained heating and anomalous pore-fluid pressurization of a hardened cement paste, *European Geosciences Union General Assembly*, Vienna, 19-24 April, *Geophysical Research Abstracts* Vol. 11, EGU2009-9608

S. GHABEZLOO, J. SULEM, AND J. SAINT-MARC (2009) Permeability-porosity relationship for compaction of a low-permeability creeping material : Experimental evaluation using a single transient test, *European Geosciences Union General Assembly*, Vienna, 19-24 April, *Geophysical Research Abstracts* Vol. 11, EGU2009-9558

J. SULEM, S. GHABEZLOO (2009) Undrained heating of geomaterials: Pore pressure increase and chemical couplings *4th Biot Conference on Poromechanics*, H. I. Ling, A. Smyth & R. Betti (Eds), Columbia University, New York City, June 8-10, 2009, 971-976.

S. GHABEZLOO, J. SULEM, S. GUEDON, J. SAINT-MARC (2009) Poromechanical behaviour of a hardened oil-well cement paste *4th Biot Conference on Poromechanics*, H. I. Ling, A. Smyth & R. Betti (Eds), Columbia University, New York City, June 8-10, 2009, 740-745.

SUBRIN, D. VU, TM., SULEM, J., ROBERT, A., MONIN, N., BRINO, L. (2009). Geometrical Treatment of Convergence and Levelling data for the description of the Anisotropic Behaviour of Carboniferous Coal Schists Met in the Saint-Martin-la-Porte Access Gallery. *Proc. World Tunnel Congress, ITA-AITES, Safe Tunnelling for the City and Environment*, Budapest, May.2009, pp.751-756.

M. MONFARED, J. SULEM, S.M. MOHAJERANI, P. DELAGE, A.M. TANG, E. DE LAURE (2009) Détermination de la perméabilité de l'argile de Boom et conditions de réalisation des essais drainés, *19<sup>ème</sup> Congrès Français de Mécanique*, Marseille, 24-28 Août.

S. GHABEZLOO, J. SULEM, S. GUEDON, J. SAINT-MARC (2009) Poromechanical behaviour of a hardened cement paste, *29th Cement and Concrete Science Conference*, 7-9 September 2009, Leeds, UK

J. SULEM (2010) Coupled thermo-hydro-mechanical processes in fault zones during rapid slip, *Keynote paper, Eurock 2010, Proceedings of the International Symposium of the International Society for Rock Mechanics*, Lausanne, Switzerland, 15-18 June 2010, pp. 15-25

S. GHABEZLOO, J. SULEM. (2010) Experimental artefacts in undrained triaxial testing, *Eurock 2010, Proceedings of the International Symposium of the International Society for Rock Mechanics*, Lausanne, Switzerland, 15-18 June 2010, pp. 63-66.

T.T.N. HOANG, M. GASC-BARBIER, J. SULEM, A. MARACHE, J. RISS (2010) Mechanical behavior of natural marble discontinuities, *Eurock 2010, Proceedings of the International Symposium of the International Society for Rock Mechanics*, Lausanne, Switzerland, 15-18 June 2010, pp. 215-218.

T.T.N. HOANG, M. GASC-BARBIER, A. MARACHE, J. RISS, J. SULEM (2010) Morphological analysis of natural marble discontinuities, *Eurock 2010, Proceedings of the International Symposium of the International Society for Rock Mechanics*, Lausanne, Switzerland, 15-18 June 2010, pp. 199-202.

J. SULEM (2010) On the role of thermal mechanisms during dynamic slip of faults. *9th HSTAM International Congress on Mechanics*, 12-14 July 2010, Limassol, Cyprus.

I. STEFANO, J. SULEM (2010) Homogenization of interlocking masonry structures using higher order continua. *9th HSTAM International Congress on Mechanics*, 12-14 July 2010, Limassol, Cyprus.

J. SULEM, N. BRANTUT (2011) Stability analysis of creeping faults: the role of chemical decomposition of minerals, in: *advances in Bifurcation and Degradation in Geomaterials* (eds: S. Bonelli, C. Dascalu, F. Nicot), proc. *9th International Workshop on Bifurcation and Degradation in Geomaterials*, 23-26 May 2011, Porquerolles, France, 101-107, Springer.



J.SULEM, I. STEFANO, E. VEVEAKIS (2011) Strain localization during rapid shearing of a saturated rock layer: Preferred instability wave length and shear band thickness, European Geosciences Union General Assembly, Vienna, 3-8 April *Geophysical Research Abstracts*, Vol. 13, EGU2011-7831-1.

N. BRANTUT, J.SULEM, A. SCHUBNEL (2011) Effect of dehydration reactions on the stability of creeping faults, European Geosciences Union General Assembly, Vienna, 3-8 April, *Geophysical Research Abstracts*, Vol. 13, EGU2011-7128-1.

VU, M.H., SULEM J., GHABEZLOO S., LAUDET, J.B. (2011) Comportement différé d'une pâte de ciment durcie sous chargement isotrope, 20<sup>ème</sup> Congrès Français de Mécanique, 28 Août-2 Septembre, Besançon.

BRANTUT N., SULEM J. (2012) Instabilities in strain-rate hardening, chemically-weakening rocks: revisiting the mechanism of "dehydration-embrittlement", European Geosciences Union General Assembly, 22-27 April, *Geophysical Research Abstracts*, Vol. 14, EGU2012-5228.

MOHAJERANI M., DELAGE P., MONFARED M., SULEM J., TANG A.-M., GATMIRI B. (2012) Effet de la contrainte et de la température sur la perméabilité de l'argilite du Callovo-Oxfordien, *Colloque National sur les propriétés de transfert des géomatériaux*, Lille, 20- 22 Mars.

MONFARED M., SULEM J., DELAGE P., MOHAJERANI M. (2012) Effet d'un plan de cisaillement sur la perméabilité d'un échantillon d'argile de Boom. *Colloque National sur les propriétés de transfert des géomatériaux*, Lille, 20- 22 Mars

MONFARED M., SULEM J., MOHAJERANI M., DELAGE P. (2012) The thermal volume change of Opalinus clay. *3<sup>rd</sup> EAGE Shal Workshop: Shale Physics and Shale Chemistry; Barcelona; Spain; 23-25 January 2012*

MONFARED M., SULEM J., DELAGE P., MOHAJERANI M. (2012) An experimental investigation of thermal pressurization in the opalinus claystone. *3<sup>rd</sup> EAGE Shal Workshop: Shale Physics and Shale Chemistry; Barcelona; Spain; 23-25 January 2012*

MOHAJERANI M., DELAGE P., MONFARED M., TANG A.M., SULEM J., GATMIRI B. (2012) On the resaturation of swelling claystone. Unsaturated soils: Research and Applications. Proceedings of the 2<sup>nd</sup> European Conference on Unsaturated Soils (E-UNSAT 2012), 2012, Vol. 1, 411 – 418.

TRAN M.-H., SULEM J., SUBRIN D. (2013) Comportement des tunnels en terrain tectonisé : Exemple de la descenderie de Saint-Martin-La-Porte, *Conférence Franco-Vietnamienne de la Construction & du développement durable*, CIGOS 2013, Lyon, 5-6 Avril.

STEFANO I., SULEM, J. (2013) Chemically induced compaction bands in geomaterials, European Geosciences Union General Assembly, Vienne, 7-12 Avril *Geophysical Research Abstracts*, Vol. 15, EGU2013-4190.

STEFANO I., SULEM, J. (2013) Chemical degradation and compaction instabilities in geomaterials, *ASCE Conference proceedings of 5th Biot conference*, Vienne, 9-12 July, pp. 397-406.

FEIA S., DUPLA J-C., SULEM J., GHABEZLOO S., CANOU J., ONAISI A., LESCANNE H. (2013) Transport et déposition de particules solides dans les réservoirs pétrolifères non cimentés, *22<sup>ème</sup> Congrès Français de Mécanique*, 26-30 Août, Bordeaux.

STEFANO I, SULEM J. (2013) Formation de bandes de compaction dans les géomatériaux causée par une dégradation chimique *22<sup>ème</sup> Congrès Français de Mécanique*, 26-30 Août, Bordeaux.

MONFARED, M, DELAGE, P, SULEM, J, MOHAJERANI, M et TANG, A.M A.M., 2013. Pressurisation thermique dans l'argile de Boom. In : 18th International Conference on Soil Mechanics and Geotechnical Engineering. Paris, France, septembre 2013. p. 3383-3386

TRAN M.-H., SULEM J., SUBRIN D. (2014) Analysis of the geotechnical data monitored during Saint-Martin-la-Porte access gallery excavation, *ISRM European Rock Mechanics Symposium (EUROCK 2014) Vigo, Spain, May 27-29*, Alejano, Peruchó, Olalla & Jiménez (Eds), Taylor&Francis.

SUHETT-HELMER G., SULEM J., GHABEZLOO S., ROHMER J., HILD F., Experimental evaluation of the fracture toughness on a limestone, *ISRM European Rock Mechanics Symposium (EUROCK 2014) Vigo, Spain, May 27-29*, Alejano, Peruchó, Olalla & Jiménez (Eds), Taylor&Francis, 217-221.

FEIA S., SULEM J., CANOU J., GHABEZLOO S., CLAIN X. (2014) Clain Permeability changes due to volumetric dilation and shear band formation in sands under triaxial loading, *International Symposium on Geomechanics from Micro to Macro*, 1-3 September, Cambridge, UK.

GUAYACAN-CARRILLO L.-M., SULEM J., SEYEDI D., GHABEZLOO S., NOIRET A, ARMAND G. (2015) Anisotropic closure analysis of a drift in Callovo-Oxfordian claystone based on in-situ convergence data, *13th International Congress on Rock Mechanics (ISRM)*, Montreal, Canada, 10-14 May.

SULEM J., STEFANO I. (2015) Multiphysics couplings and stability of fault zones, Keynote paper, *13th International Congress on Rock Mechanics (ISRM)*, Montreal, Canada, 10-14 May.

GHABEZLOO S., SULEM J., VU M.H (2015), Drained and Undrained Creep of Hardened Cement Paste under Isotropic Loading, *Concreep (ASCE)*, Vienne, 21-23 Septembre.

TRAN MANH .H., SULEM J., SUBRIN D., BILLAUX D. (2015), Modeling of anisotropic time-dependent deformation in the Saint-Martin-La-Porte access adit, *Future developments in Rock Mechanics, ISRM European Rock Mechanics Symposium (EUROCK 2015)*, Schubert & Klockner (eds), Salzburg, Austria, October 7-9, 829-834.

GUAYACAN-CARRILLO L.-M., SULEM J., NOIRET A, SEYEDI D., GHABEZLOO S., ARMAND G. (2016). Analyse de la convergence a long terme des galeries dans l'argilite du Callovo-Oxfordien. *Journées Nationales de Géotechnique et de Géologie de l'Ingénieur JNGG'16* - Nancy, 6-8 juillet 2016.

BAHAFID S., DUC M., GHABEZLOO S., FAURE P., SULEM J. (2016) Influence of curing temperature on the chemical composition and density of C-S-H in an oil-well cement paste. *36<sup>th</sup> Cement and concrete science conference*, 5-6 September, Cardiff, UK.

GUAYACÁN-CARRILLO LM, SEYEDI DM, SULEM J, GHABEZLOO S, NOIRET A, ARMAND G (2016). The effect of over excavation on the time-dependent convergence of a drift in Callovo-Oxfordian claystone. In: Ulusay et al. (eds), *Rock Mechanics and Rock Engineering: From the Past to the Future*. Proc. ISRM International Symposium and EUROCK 2016, Cappadocia, Turkey, 29-31 August 2016, pp 945-950. ISBN 978-1-138-03265-1.

GUAYACÁN-CARRILLO LM, SEYEDI DM, SULEM J, GHABEZLOO S, NOIRET A, ARMAND G (2016). Tunnel excavation in low permeability ground: effect of anisotropy on excess pore pressure. In: Ulusay et al. (eds), *Rock Mechanics and Rock Engineering: From the Past to the Future*. Proc. ISRM International Symposium and EUROCK 2016, Cappadocia, Turkey, 29-31 August 2016, pp 463-467. ISBN 978-1-138-03265-1.

SULEM J., STEFANO I. (2017). Coupled phenomena and instability in fault zones. In: *Bifurcation and Degradation of Geomaterials with Engineering Applications*. (E. Papamichos, P. Papanastasiou, E. Pasternak, & A. Dyskin, Eds.). Proc. *11th International Workshop on Bifurcation and Degradation in Geomaterials*, 22-25 May 2017, Limassol, Cyprus, Springer, 529-538.

STEFANO I., SULEM, J. (2017). Chemically induced strain localization in geomaterials. In: *Bifurcation and Degradation of Geomaterials with Engineering Applications*. (E. Papamichos, P. Papanastasiou, E. Pasternak, & A. Dyskin, Eds.). Proc. *11th International Workshop on Bifurcation and Degradation in Geomaterials*, 22-25 May 2017, Limassol, Cyprus, Springer, 133-138.

STEFANO I., SULEM, J. (2017). Strain Localization with rate dependent models cersus Cosserat continuum: An illustrative example. In: *Bifurcation and Degradation of Geomaterials with Engineering Applications*. (E. Papamichos, P. Papanastasiou, E. Pasternak, & A. Dyskin, Eds.). Proc. *11th International Workshop on Bifurcation and Degradation in Geomaterials*, 22-25 May 2017, Limassol, Cyprus, Springer, 557-562.

RATTEZ H., STEFANO I., SULEM J., VEVEAKIS E., POULET T. (2017) Localisation of deformation for shearing of a rock layer with Cosserat microstructure and different couplings. In: *Bifurcation and Degradation of Geomaterials with Engineering Applications*. (E. Papamichos, P. Papanastasiou, E. Pasternak, & A. Dyskin, Eds.). Proc. *11th International Workshop on Bifurcation and Degradation in Geomaterials*, 22-25 May 2017, Limassol, Cyprus, Springer, 155-162.

BRAUN P., GHABEZLOO S., DELAGE P., SULEM J., CONIL N. (2017) Pore pressure diffusion in some rock mechanics experiments. In: *Proceedings of the 6th Biot Conference on Poromechanics*, ASCE, (M. Vandamme, P. Dangla, J.-M. Pereira, S. Ghabezloo, Eds), 9-13 July, Paris, 117-124.

GUAYACÁN-CARRILLO L-M, GHABEZLOO S., SULEM J., SEYEDI D., ARMAND G. (2017). Tunnel excavation in low-permeability anisotropic ground: Effect of anisotropy and hydromechanical couplings on pore pressure evolution. In: *Proceedings of the 6th Biot Conference on Poromechanics*, ASCE, (M. Vandamme, P. Dangla, J.-M. Pereira, S. Ghabezloo, Eds), 9-13 July, Paris, 207-214.

BAHAFID S., GHABEZLOO S., DUC M., FAURE P., SULEM J. (2017). Microstructure characterization and micromechanical modelling of cement pastes hydrated at different temperatures. In: *Proceedings of the 6th Biot Conference on Poromechanics*, ASCE, (M. Vandamme, P. Dangla, J.-M. Pereira, S. Ghabezloo, Eds), 9-13 July, Paris, 1249-1257.

RATTEZ H., STEFANO I., SULEM J. (2017). Effect of thermo-poro-mechanical properties on the stability of faults. In: *Proceedings of the 6th Biot Conference on Poromechanics*, ASCE, (M. Vandamme, P. Dangla, J.-M. Pereira, S. Ghabezloo, Eds), 9-13 July, Paris, 1858-1865.

BAHAFID S., GHABEZLOO S., FAURE P., DUC M., SULEM J. (2017). Micromechanical Modelling of Cement Pastes Hydrated at Different Temperatures. S. *37<sup>th</sup> Cement and concrete science conference*, 11-12 September, London.

DE LA FUENTE M., SULEM J., TAHERZADEH R., SUBRIN D. (2017) Traitement et rétro-analyse des auscultations réalisées dans le tunnel routier du Fréjus et sa galerie de sécurité lors de leurs constructions respectives. *Congés International AFTES 2017*, Paris, en ligne à l'adresse : <http://217.16.3.127/~aftes2017.com/articlescomplets/C6-3.pdf>

BRANTUT N., STEFANO I., SULEM J. (2018) Dehydration embrittlement and compaction instabilities in subduction zones. In : *Geophysical Research Abstracts*, European Geophysical Union General Assembly, 8 – 13 April, Vienna, Vol. 20, EGU2018-5039.

DE LA FUENTE M., TAHEZADEH R., SULEM J., SUBRIN D. (2018) Analysis and comparison of the measurements of Fréjus road tunnel and of its safety gallery. In: Litvinenko, V. (ed.) *Geomechanics and Geodynamics of Rock Masses - Volume 2*. CRC Press, Eurock symposium 2018, Saint Petersburg, 1143-1148

DE LA FUENTE M., SULEM J, TAHERZADEH R., SUBRIN D. (2018). Analyse et comparaison des auscultations du tunnel routier du Fréjus et de sa galerie de sécurité. In : *Delage P., Chevalier C., Cui Y.J. & Semblat J.F. (Eds.), 2018. Actes des 9èmes Journées Nationales de Géotechnique et de Géologie de l'Ingénieur, 13-15 juin 2018 (online). Marne-la-Vallée : IFSTTAR-ENPC, 2018. Collection Actes Interactifs de l'Ifsttar, AII3. 978-2-85782-742-9. En ligne à l'adresse <http://www.ifsttar.fr/collections/ActesInteractifs/AII3>.*

BRAUN P., GHABEZLOO S., DELAGE P., SULEM J., CONIL N. (2018). Détermination des propriétés THM des roches poreuses avec un essai de chargement transitoire. In : *Delage P., Chevalier C., Cui Y.J. & Semblat J.F. (Eds.), 2018. Actes des 9èmes Journées Nationales de Géotechnique et de Géologie de l'Ingénieur, 13-15 juin 2018 (online). Marne-la-Vallée : IFSTTAR-ENPC, 2018. Collection Actes Interactifs de l'Ifsttar, AII3. 978-2-85782-742-9. En ligne à l'adresse <http://www.ifsttar.fr/collections/ActesInteractifs/AII3>.*

BRAUN P., GHABEZLOO S., DELAGE P., SULEM J., CONIL N. (2018). Caractérisation de l'argilite du Callovo-Oxfordien sous des sollicitations thermiques. In: *Delage P., Chevalier C., Cui Y.J. & Semblat J.F. (Eds.), 2018. Actes des 9èmes Journées Nationales de Géotechnique et de Géologie de l'Ingénieur, 13-15 juin 2018 (online). Marne-la-Vallée : IFSTTAR-ENPC, 2018. Collection Actes Interactifs de l'Ifsttar, AII3. 978-2-85782-742-9. En ligne à l'adresse <http://www.ifsttar.fr/collections/ActesInteractifs/AII3>.*