

BOOKS AND LECTURE NOTES

1. Vulliet, L., Laloui, L., Zhao, J. *Mécanique des sols et des roches*, Presses Polytechniques et Universitaires Romandes (PPUR), Lausanne, 600 p., 2016
2. Vulliet, L., Defert, R. *Risk Analysis and Management*, Course notes, EPFL, 2015
3. Vulliet, L. *Instability of soil masses*. In: Environmental Geomechanics, 2010, p. 73-91. London: ISTE-Wiley
4. Ammann W., Dannenmann S., Vulliet L. *RISK21 - Coping with Risk due to Natural Hazards in the 21st Century*. Proceedings of the RISK21 Workshop. Monte Verita, Switzerland, Dec. 2004. Eds W. Ammann, S. Dannenmann, L. Vulliet. Ed. Taylor & Francis, 2006, ISBN 9780415401722
5. Laloui L., M. Nuth & L. Vulliet. *Experimental and numerical investigations of the behaviour of a heat exchanger pile*. Chapter of the book "Ground improvement - Case histories", pp. 1071-1090; Eds. B. Indraratna & C. Jian, Elsevier, 2005
6. Vulliet L., Laloui L., Schrefler B. (Eds) *Environmental Geomechanics*. PPUR-EPFL Press, Lausanne (2002) 421 p.
7. Vulliet L., *Instabilité des massifs de sol*. Un chapitre du livre "Géomécanique environnementale risques naturels et patrimoine". Sous la direction de B. Schrefler, P. Dalage, Ed. Hermès Science, 2001, 334 p.
8. Vulliet L., Laloui L., *Mechanics of multiphase porous media-application to unsaturated soils* . A chapter of the book "Continuum mechanics and applications in geophysics and environment.". Editors B. Straughan et al., Ed. Springer, 2001, Berlin, 393 p.
9. Vulliet L., *Géomécanique*, Notes de cours, EPFL Lausanne, 2001
10. Geiser F., Laloui L., Vulliet L., *Modelling the behaviour of unsaturated silt*. A chapter of the book "Experimental Evidence and Theoretical Approaches in Unsaturated Soils". Tarautino, Maucuso. Ed., Balkema, Rotterdam, 2000, 199p.
11. Vulliet L., *Natural slopes in slow movement*. A chapter of the book "Modeling in Geomechanics", Zaman Booker, Gioda . Ed., J. Wiley & Sons, 2000, 706 p.
12. Vulliet L., Gencer M., *Géotechnique et fondations*, Notes de cours, EPFL, 2000
13. Haldi P.-A. & Vulliet L., *Fiabilité et sécurité des systèmes civils*, Notes de cours, EPFL 1998
14. Recordon, E., Vulliet L., Laloui L. *Ecoulements souterrains*, Notes de cours, EPFL, 1998
15. Vulliet L. (1986): *Modélisation des pentes naturelles en mouvement*. Thèse de l'Ecole Polytechnique Fédérale de Lausanne No 635 pour l'obtention du titre de docteur ès sciences techniques, EPF-Lausanne

PUBLICATIONS IN REFEREED JOURNALS

1. Obrzud R. F., Truty A. and Vulliet L., Numerical modeling and neural networks to identify model parameters from piezocone tests: I. FEM analysis of penetration in two-phase continuum, in *International Journal For Numerical And Analytical Methods In Geomechanics*, vol. 35, p. 1703-1730, 2011.
2. Obrzud R. F., Truty A. and Vulliet L., Numerical modeling and neural networks to identify model parameters from piezocone tests: II. Multi-parameter identification from piezocone data, in *International Journal for Numerical and Analytical Methods in Geomechanics*, 2011
3. Plumey S., Muttoni A., Vulliet L., Labiouse V. Analytical and numerical analyses of the load-bearing capacity of retaining walls laterally supported at both ends. *International Journal for numerical and analytical methods in geomechanics*, vol. 35, num. 9, p. 1019-1033, 2011.
4. Koliji A., Vulliet L., Laloui L. Structural characterization of unsaturated aggregated soil. *Canadian Geotechnical Journal*, vol. 47, num. 3, 2010, p. 297-311
5. Koliji A., Laloui L., Vulliet L. Constitutive modeling of unsaturated aggregated soils. *International Journal of Numerical and Analytical Methods in Geomechanics*, vol. 34, 2010, p. 1846–1876
6. Klubertanz G., Laloui L., Vulliet L. Identification of mechanisms for landslide type initiation of debris flows. In: *Engineering Geology*, vol. 109, 2009, p. 114-123
7. Koliji A., Vulliet L., Laloui L. Behavior of Unsaturated Aggregated Soil in Oedometric Condition. In: *Soils and Foundations*, vol. 49, num. 3, 2009, p. 369-380

8. Obrzud R.F., Vulliet L., Truty A. A combined neural network/gradient-based approach for the identification of constitutive model parameters using self-boring pressuremeter tests. In: *International Journal for Numerical and Analytical Methods in Geomechanics*, vol. 33, num. 6, 2009, p. 817-849
9. Obrzud R.F., Vulliet L., Truty A. Optimization framework for calibration of constitutive models enhanced by neural networks. In: *International Journal for Numerical and Analytical Methods in Geomechanics*, vol. 33, num. 1, 2009, p. 71-94
10. Kolij, A., Vulliet L., Laloui L. New basis for the constitutive modelling of aggregated soils. *Acta geotechnica*, 2008, p. 61-69 Springer Verlag
11. Koliji A., Lehmann P., Vulliet L., Laloui L. et al. Assessment of structural evolution of aggregated soil using neutron tomography. In: *Water Resources Research*, vol. 44, num. W00C07, 2008
12. Carminati A., Kaestner A., Ippisch O., Koliji A., Lehmann P., Hassanein R., Vontobel P., Lehmann E., Laloui L., Vulliet L., Flühler H. Water flow between soil aggregates. In: *Transport in Porous Media*, vol. 68, 2007, p. 219-236
13. Gachet P., Geiser F., Laloui L., Vulliet L. Automated Digital Image Processing for Volume Change Measurement in Triaxial Cells. *Geotechnical Testing Journal*, vol. 30 (2007), no 2, pp. 98-103
14. Koliji A., Laloui L., Cuisinier O., Vulliet L. Suction induced effects on the fabric of a structured soil. *Transport in Porous Media*, Vol. 64(2), pp. 261-278, 2006.
15. Laloui L., Nuth M., Vulliet L. Experimental and numerical investigations of the behaviour of a heat exchanger pile. *International Journal for Numerical and Analytical Methods in Geomechanics*, vol. 30, pp. 763-781, 2006.
16. Laloui L., Péron H., Geiser F., Rifa'i A., Vulliet L. Advances in volume measurement in unsaturated triaxial tests. *Soils and Foundations*, Vol. 46 (2006), N° 3, pp. 341-349
17. Mayoraz F., Vulliet L., Laloui L. Attrition and particle breakage under monotonic and cyclic loading. *Comptes Rendus Académie des Sciences, C. R. Mecanique* Vol. 334, N. 1, pp. 1-7, 2006.
18. Geiser F., Laloui L., Vulliet L. Elasto-plasticity of unsaturated soils : laboratory test results on a remoulded silt. *Soils and Foundations Journal*, vol. 46 (2006), no 5, pp. 545-556, ISSN 0038-0806 Khalili N., R. Witt, L. Laloui, L. Vulliet, A. Koliji. "Effective stress in double porous media with two immiscible fluids". *Geophysical Research Letters* 32 (15): Art. No. L15309 AUG 10 2005
19. Cekerevac C., Laloui L., Vulliet L. A Novel Triaxial Apparatus for Thermo-Mechanical Testing of Soils. *Geotechnical Testing Journal*, Vol. 28 (2005), issue 2, pp. 161-170
20. Kern M., Buser O., Peinke J., Siefert M., Vulliet L. Stochastic analysis of single particle segregational dynamics. *Physic Letters A* 336 (4-5): 428-433 MAR 14 2005
21. Prina E., Bonnard C., Vulliet L. Vulnerability and risk assessment of a mountain road crossing landslides. *Rivista italiana di geotecnica* , Anno XXXVIII, no 2 (2004), pp 67-79
22. Laloui L., Klubertanz G., Vulliet L. Solid - air coupling in multiphase porous media. *Int. Journ. for Numer. and Anal. Meth. in Geomech.*, vol. 27(2003), no 3, pp. 183-206
23. Laloui L., Moreni M., Vulliet L. Comportement d'un pieu bi-fonction, fondation et échangeur de chaleur. *Revue canadienne de géotechnique* , vol. 40 (2003) , pp. 388-402
24. Gachet Ph., Klubertanz G., Laloui L., Vulliet L. Interface behavior of unsaturated soil with small-scale models and use of image processing techniques. *Geotechnical Testing Journal*, March 2003, vol. 26, no 1, pp. 12-21
25. Klubertanz G., Bouchelaghem F., Laloui L., Vulliet L., Miscible and immiscible multiphase flow in deformable porous media. *Mathematical and Computer Modelling Journal*, vol. 37 (2003), pp. 571-582
26. Mayoraz F., Vulliet L. Neural networks for slope movement prediction. *Int. Journal of Geomechanics*, vol. 2 (2002) pp. 153-173
27. Laloui L., Geiser F., Vulliet L., Constitutive modelling of unsaturated soils. *Revue française de génie civil*, vol. 5, no 6, 2001, pp. 797-807.
28. Bouchelaghem F., Vulliet L., Leroy D., Laloui L., Descoeuilles F., Real Scale Miscible Grout Injection Experiment and Performance of Advection-Dispersion-Filtration Model. *Int. J. for Numerical and Analytical Methods in Geomechanics*, 2001, Vol. 25, no 12, pp. 1149-1173.
29. Bouchelaghem F., Vulliet L., Laloui L., Mathematical and Numerical Filtration-Advection-Dispersion Model of Miscible Grout, Propagation in Saturated Porous Media. *Int. J. for Numerical and Analytical Methods in Geomechanics*, 2001, Vol. 25, no 12, pp. 1195-1227.
30. Gysi M., Klubertanz G., Vulliet L., Compaction of an Eutric Cambisol under heavy wheel traffic in Switzerland - field data and modelling. *J. of Soil and Tillage Research*, vol. 56, 2000, pp. 117-129.

31. Hutter K., Laloui L., Vulliet L., Thermodynamically mixture models of saturated and unsaturated soils - A clarification. *Journal of Mech. of Cohesive -Frictional Materials*, vol. 4. No 4, pp. 295-338, 1999.
32. Vulliet L., Modelling creeping slopes. *Rivista italiana di geotecnica*. Année 33, no 1, Mars 1999, pp. 71-76.
33. Mayoraz F., Cornu Th., Vulliet L., Neural networks for the prediction of slope movements. *Rivista italiana di geotecnica*, Année 33, no 1, Mars 1999, pp.43-46.
34. Samtani N., Desai Chandra S., Vulliet L., An interface model to describe viscoplastic behavior. *International J. for Numerical and Analytical Methods in Geomechanics*, 1996, vol. 20, p. 231-252.
35. Desai C.S., Samtani N., Vulliet L. (1995): Constitutive modeling and analysis of creeping slopes, *J. of Geotech. Eng., ASCE*, Vol. 121, No 1, pp. 43-56
36. Vulliet L., Hutter K. (1988): Viscous-type sliding laws for landslides. *Canadian Geotech. J.*, No.25, pp. 467-477
37. Vulliet L., Hutter K. (1988): Set of constitutive models for soils under slow movement. *J. of Geotech. Div., ASCE*, Vol.114, No.9, pp. 1022-1041
38. Vulliet L., Hutter K. (1988): A continuum model for natural slopes in slow movement. *Geotechnique*, Vol.38, No.2, pp. 199-217
39. Hager W.H., Vulliet L. (1986): Die rasche Absenkung von Speicherseen. *Wasser Energie Luft*, 7/8, pp. 154-156
40. Hutter K., Vulliet L. (1985): Gravity-driven slow creeping flow of a viscous body at elevated temperatures. *J. of Thermal Stresses*, Hemisphere Pub. Co., 8:99-138

CONFERENCE PAPERS

1. Rascol, E., Vulliet, L. Characterization of natural sand under complex dynamic loading. Kokusho, Takaji (ed.) ; Tsukamoto, Yoshimichi (ed.) et al. Presented at: International Conference on Performance-Based Design in Earthquake Geotechnical Engineering — from case history to practice —, Tsukuba, Japan, June 15-18, 2009. In: Performance-Based Design in Earthquake Geotechnical Engineering, 2009, p. 1505-1513. London: Taylor & Francis Group, 2009.
2. Koliji, A. ; Vulliet, L. ; Laloui, L. Advanced Constitutive Model for Unsaturated Structured Soil with Double Porosity. Presented at: Proceedings of the 12th IACMAG Conference, Goa, India, Oct. 1-6, 2008.
3. Koliji, A. ; Vulliet, L. ; Laloui, L. New basis for constitutive modelling of unsaturated aggregated soil with structure degradation.Toll, D.G. (ed.) et al. Presented at: First European Conference on Unsaturated Soils, Durham, UK, July 2-4, 2008. In: Unsaturated Soils: Advances in Geo-Engineering, 2008, p. 641-646. CRC Press, 2008.
4. Koliji A., Vulliet L., Laloui L. Soil structure evolution : experimental and constitutive consideration. Proc.10th Int. Symp. on Numerical Models in Geomechanics, NUMOG X, 25-27 Avril 2007, Rhodes, Greece, pp. 133-138
5. Koliji A., Carminati A., Kaestner A., Vulliet L., Laloui L., Fluehler H., Vontobel P., Hassanein R. Experimental study of flow and deformation in aggregated soils using neutron tomography. Proc. the Intern. Sym. Advances in X-ray Tomography for Geomaterials , pp. 341-348, Eds . Desrues...(et al.), ISTE, 2006
6. Koliji A., Vulliet L., Laloui L., Carminati A., Kaestner A., Flühler H., Lehmann P., Hassanein R., Lehmann E., Vontobel P. Structure degradation of dry aggregated soils: experimental evidence and model formulation. ASCE Geotechnical Special Publication N° 147, Geo-Institute, pp. 2174-2185, Editor Miller...(et al).., Unsat'06, 2006, ISBN 0-7844-0802-5
7. Bonnard Ch., Derron M.-H., Moreno J., Pittet X., Tacher L., Turberg P., Parriaux A., Vulliet L. Interactive computer-aided learning of landslide identification and monitoring process. Proc. 16th Int. Conf. on Soil Mechanics and Geotechnical Eng.(16ICSMGE), Osaka , Sept.2005, pp. 2781-84
8. Laloui L., Cekerevac C., Vulliet L. Non-isothermal modelling of the cyclic mechanical behaviour of MC clay. Proc. of the 11th Int. Conf. of IACMAG, Torino, Italy 19-24 June 2005. Ed. Pàtron Editore, ISBN 88-555-2812-2, pp. pp. 377-383
9. Mayoraz F., Vulliet L., Laloui L. Attrition and particle breakage under monotonic and cyclic loading. Proc. 16th Int. Conf. on Soil Mechanics and Geotechnical Eng.(16ICSMGE), Osaka , Sept.2005, pp. 409-412

10. Vulliet L., Bonnard Ch., Laloui L., F. Geiser. Numerical analysis of natural slopes. Proc. of the 11th Int. Conf. of IACMAG, Torino, Italy 19-24 June 2005. Ed. Pàtron Editore, ISBN 88-555-2812-2, pp. 657-670
11. Koliji A., Laloui L., Vulliet L. Mathematical analysis of the hydric behaviour of structured soils . Proc. of the 9th Symp. on Numerical Models in Geomechanics- NUMOG IX, 25-27 August, 2004 Ottawa, pp. 31-36. Ed. Balkema (2004), ISBN 90 5809 636 X
12. Koliji A., Laloui L., Cuisinier O., Vulliet L. Modelling suction increase effects on the fabric of a structured soil. Proc. of the 2nd International Workshop on Unsaturated Soils: advances in testing, modelling and engineering applications, Naples, June 2004, pp. 83-94, Taylor & Francis Group
13. Plumey S., Muttoni A., Vulliet L., Labiouse V. Plasticity in soil-structure interaction applied to cut-and-cover tunnels. V. In: 5th International PhD Symposium in civil engineering, vol. 2, 2004, p. 989-995
14. Vulliet L., Laloui L., Koliji A., Cuisinier O. Unsaturated structured soil with multi-porosity = Multi-poröse Strukturen in teilgesättigten Böden. BAW-Workshop : Boden-und Sohl-Stabilität-Betrachtungen an der Schnittstelle zwischen Geotechnik und Wasserbau, Karlsruhe, Sept. 2004, pp.4-1/4-8
15. Cekerevac C., L. Laloui & L. Vulliet. A new temperature controlled triaxial apparatus. Pro. 3rd Int. Symp. on Deformation Character of Geomaterials, Lyon 23-24 Sept. 2003, pp. 133-137. Ed. Balkema (2003)
16. Laloui L., Vulliet L., Cekerevac C., Moreni M. Heat exchanger pile: in situ testing and constitutive modelling. Proc. Int. Conf. on Geo-Environmental Engineering, Singapore, 9-10 Dec. 2003 , pp. 1-14
17. Bardou E., Ancey C., Bonnard C., Vulliet L. Classification of debris-flow deposits for hazard assessment in alpine areas. Proc. 3th Int. Conf. on Debris-Flow hazards mitigation: mechanics, prediction, and assessment. Davos, Switzerland, Sept. 10-12, 2003. Ed. Millpress (2003), ISBN90 77017 78X , pp. 799-808
18. Bardou E., Bonnard Ch., Vulliet L., Methodology of debris flows diagnosis on an alpine watershed. Proc. Int. Conf. on Fast Slope Movements, ICFSM 2003, Naples, May 11-13, 2003, pp. 23-27
19. Vulliet L., Laloui L., Klubertanz G., Geiser F., Rifa'i A. Mechanik ungesättigter Böden und deren Anwendung auf Hangbewegungen = Mechanics of unsaturated soils and their application on slope stability. BAW-Workshop : Boden-und Sohl-Stabilität-Betrachtungen an der Schnittstelle zwischen Geotechnik und Wasserbau, Karlsruhe, Sept. 2004, pp. 19-1 / 19-10
20. Vulliet L., Laloui L., Harding R. Environmental geomechanics: an introduction. Proc. of the int. Workshop on Environmental Geomechanics, Monte Verità 2002, Switzerland, pp. 3-12. Ed. PPUR (2002), ISBN 2-88074-512-2
21. Rifa'i A., Vulliet L., Laloui L. Simplified constitutive modelling of the behaviour of unsaturated soil. Proc. of the second Biot Conf. on Poromechanics, Grenoble, France, 26-28 August 2002. pp. 299-305. Ed. Balkema, ISBN 90 5809 394 8
22. Laloui L., Cekerevac C., Vulliet L. Thermo-plasticity of clays : a simple constitutive approach. Proc. of the intern. Workshop on Environmental Geomechanics, Monte Verità 2002, Switzerland, Ed. PPUR (2002), ISBN 2-88074-512-2 , pp. 45-58
23. Laloui L., Moreni M., Vulliet L. Thermo-mechanical behaviour of a heat exchanger pile. Proc. of the intern. Workshop on Environmental Geomechanics, Monte Verità 2002, Switzerland, Ed. PPUR (2002), ISBN 2-88074-515-2, pp. 403-412
24. Laloui L., Vulliet L., Cekerevac C., Moreni M. Thermomechanisches Verhalten von Böden mit Anwendung auf Energiepähle. Proc. of the workshop Baugrund-Tragwerk-Interaktion, University Darmstadt, 30 Oct. 2002, pp. 1-18
25. Klubertanz G., Laloui L., Vulliet L., Gachet Ph. Experimental validation of the hydro-mechanical modeling of unsaturated soils. Proceedings of the Workshop Chemo-Mechanical Coupling in Clays : from Nano-Scale to Engineering Applications. Maratea, June 2001, pp. 223-230. Ed. Balkema (2002), ISBN 90-5809-384-0
26. Bouchelaghem F., Vulliet L. Injection of a micro-fine cement into a porous medium : modelling and experimentation. Proc. 8th. Int. Symp. on Numerical Models in Geomechanics, NUMOG VIII, Rome, Italy, April 2002, pp. 655-656. Ed. Balkema (2002), ISBN 90 5809 359 X
27. Cekerevac C., Laloui L., Vulliet L. Dependency law for thermal evolution of preconsolidation pressure. Proc. 8th. Int. Symp. on Numerical Models in Geomechanics, NUMOG VIII, Rome, Italy, April 2002 , pp. 687-692. Ed. Balkema (2002), ISBN 90 5809 359 X

28. Rifa'i A., Laloui L., Vulliet L. Volume measurement in unsaturated triaxial test using liquid variation and image processing. Proc. 3th Int. Conf. on Unsaturated Soils , UNSAT 2002, Rio de Janeiro, pp. 441-445. Ed. Balkema (2002), ISBN 90 5809 371 9
29. Rifa'i A., Laloui L., Deschamps D., Vulliet L. 2002 : Effect of wetting process on the yield limit of a remoulded silt . Proc. 3th Int. Conf. on Unsaturated Soils , UNSAT 2002, Rio de Janeiro , pp. 159-165. Ed. Balkema (2002), ISBN 90 5809 371 9
30. Moreni M., Laloui L., Vulliet L., Thermo-mechanical behaviour of a heat exchanger pile. XVth Int. Conf. on Soil Mechanics and Geotechnical Eng. CIMSG, Istanbul, August 2001, pp. 965-969.
31. Vulliet L., Laloui L., Unsaturated Soil Mechanics : Constitutive Modelling and Coupling Effects. 10th Int. Conf. on Computer Methods and Advances in Geomechanics, IACMAG, Tucson, Arizona, 2001, pp. 765-774.
32. Laloui L., Cekerevac C., Vulliet L., Thermo-Mechanical Modelling of the Behaviour of MC Clay. 10th Int. Conf. on Computer Methods and Advances in Geomechanics, IACMAG, January 2001, Tucson, Arizona, pp. 829-835.
33. Klubertanz G., Laloui L., Vulliet L., On the use of multiphase modelling to simulate the initiation of slope movements. Int. Symp. on Landslide ISL, Cardiff, June 2000 , pp. 831-836.
34. Rifa'i A., Laloui L., Vulliet L., Geiser F., Performances of HiSS d1 unsat model under saturated and unsaturated conditions. Asian conf. in Unsaturated Soils, UNSAT-ASIA 2000, 18-19 May 2000, Singapore, pp. 255-260.
35. Klubertanz G., Laloui L., Vulliet L., Parameters governing debris flow initiation. 2nd Int. Conf. on Debris-Flow Hazards Mitigation, Taipei, August 2000, pp. 73-79.
36. Vulliet L., Mayoraz Fr., Coupling neural networks and mechanical models for a better landslide management. Proc. VIIth Int. Symp. on Landslides, Cardiff, June 2000, pp. 1521-1528.
37. Vulliet L., Bouchelaghem F., Schillinger L., Leroy D., Laloui L., Descoeuilles F., Injection of micro-cement in fine-grained soil : theory, modelling and laboratory testing. 7th Colloquium Darmstadt Geotechnics, March 2000, pp. 157-175.
38. Vulliet L., Kern M., Ammann W., Inverse grading in slopes. Proc. VIIth Int. Symp. on Landslides, Cardiff, June 2000, pp. 1514-1520
39. Geiser F., Laloui L., Vulliet L., On the volume measurement in unsaturated triaxial test Asian conf. in Unsaturated Soils, UNSAT-ASIA 2000, 18-19 May 2000, Singapore, pp. 669-674.
40. Bouchelaghem F., Laloui L., Vulliet L., Descoeuilles F., Numerical model of miscible grout propagation in deformable saturated porous media. 7th Int., Symp. on Numerical Models in Geomechanics, NUMOG, Graz, Austria, Sept. 1999, pp.243-248.
41. Geiser F., Laloui L., Vulliet L., Unsaturated soil modelling with special emphasis on undrained conditions. Proc. 7th Int. Symp. on Numerical Models in Geomechanics, NUMOG, Sept. 1999, Graz, Austria, pp. 9-14.
42. Kern M., Vulliet L., Ammann W., Inverse grading in granular flow. Proc. 7th Int. Symp. on Numerical Models in Geomechanics, NUMOG, 1-3 Sept. , 1999, Graz, Austria, pp. 535-540.
43. Klubertanz G., Bouchelaghem F., Laloui L., Vulliet L., Miscible and immiscible multiphase flow in porous media. Proc. fifth U.S. National Congress on Computational Mechanics, USNCCM99, August 4-6, 1999, Boulder, Colorado.
44. Klubertanz G., Gysi M., Vulliet L., Ott A., A study on soil compaction due to agricultural traffic : computational results and field data. Proc. 7th Int. Symp. on Num. Models in Geomech., NUMOG, Sept., 1999, Graz, Austria, pp. 621-626.
45. Klubertanz G., Gachet Ph., Laloui L., Vulliet L., Hydro-mechanical coupling in unsaturated porous media : an experimental and numerical approach. Proc. NAFEMS World Congress, Newport, Avril 1999, pp. 633-644.
46. Klubertanz G., Laloui L., Vulliet L., On the Implementation and Performance of a Coupled Multiphase Model for Porous Media : Numerical Studies and Applications. Proc. of the first European Conference on Computational Mechanics (ECCM'99), 31 Août-3 Sept. 1999, Munich, 19p.
47. Laloui L., Moreni M., Fromentin A., Pahud D., Vulliet L., In-situ Thermo-Mecanical Load Test on a Heat Exchanger Pile. Proc. 4th Intern. Conf. on Deep Foundation Practice, Piletalk Singapore , July 1999, pp.273-279.
48. Vulliet L., Meyer A., The Vigner Tunnel : determining contact laws from static load tests on piles. 12th European, Conf. on Soil Mechanics and Geotechnical Engineering. ECSMGE, Amsterdam, June 1999, pp. 1175-1181.

49. Laloui L., Hutter K., Vulliet L., Thermodynamics of Saturated and Unsaturated Soils. Biot conference on poromechanics. Louvain-La-Neuve. sept. 1998, pp. 93-97.
50. Geiser F., Laloui L., Vulliet L., Yielding of a remoulded sandy in saturated and unsaturated states. Proc. of the 2nd International Conference on Unsaturated Soils, Beijing 27-30 August 1998, pp. 54-59.
51. Huot F.G., Vulliet L., Small strain elastic moduli of a saturated sand. Biot conference on poromechanics. Louvain-La-Neuve. sept. 1998, pp. 245-251.
52. Klubertanz G., Laloui L., Vulliet L., Numerical modeling of unsaturated porous media as a two and three phase medium : a comparison. IACMAG : ninth international Conference of the intern. Association for Computer Methods and Advances in Geomechanics, Wuhan, nov. 2-7, 1997, pp. 1159-1164.
53. Klubertanz G., Laloui L., Vulliet L., Numerical modeling of hydro-mechanical behaviour of unsaturated porous media. NAFEMS World Congress ' 97, 9-11 avril 1997, Stuttgart, vol. 2, p. 1302-1313.
54. Laloui L., Geiser F., Vulliet L., Li X.L., Bolle A., Charlier R., Characterisation of the mechanical behavior of an unsaturated sandy silt. 14e Int. Conf. on Soil Mechanics and Foundation Engineering Hamburg , 6-12 sept. 1997. vol. 1, p. 347-350.
55. Mayoraz F., Cornu Th., Djukic D., Vulliet L., Neural networks : A tool for prediction of slope movements. 14th Int. Conf. on Soil Mechanics and Foundation Engineering Hamburg, 6-12, sept. 1997. vol. 1, p. 703-706.
56. Charlier R., Xiang Ling Li, Bolle A., Geiser Fr., Laloui L., Vulliet L., Mechanical behaviour modelling of an unsaturated sandy silt. 14th Int. Conf. on Soil Mechanics & Foundation Engineering, Hamburg, 6-12 sept. 1997. vol. 1, p. 641-644.
57. Geiser F., Laloui L., Vulliet L., Constitutive modelling of unsaturated sandy silt. IACMAG, ninth intern. conference of the intern. ass. for computer methods and advances in geomechanics. Wuhan, nov. 2-7, 1997, vol. 2, pp. 899-904.
58. Vulliet L., Three Families of Models to Predict Slowly Moving Landslides. IACMAG 97, 2-7 nov. 1997, Wuhan, China, pp. 277-284.
59. Vulliet L., Casanova N., Inaudi D., Osa-Wyser A., Vurpillot S., Development of fiber optic extensometers. The XIV Int. Conf. on Soil Mechanics and Foundation Engineering , Hamburg, 6-12 sept. 1997, vol. 3, p. 1527-1530.
60. Vulliet L., Meyer A., Détermining contact laws from static load tests on piles. XIV Int. Conf. on Soil Mechanics and Foundation Engineering, Hambourg 1997.
61. Geiser F., Laloui L., Vulliet L., Desai C.S., Disturbed state concept for partially saturated soils. 6th NUMOG, 2-4 july 1997, Montreal, p.129-133.
62. Vulliet L., Casanova N., Inaudi D., Osa-Wyser A., Vurpillot S., Development and laboratory tests of deformation fiber optic sensors for civil engineering applications. Inst. Symp. on Lasers, Optics and Vision, Besançon 10-14 juin 1996. SPIE vol. 2782 / 97-108.
63. Vulliet L., Casanova N., Inaudi D., Osa-Wyser A., Vurpillot S. (1997): Development of fiber optic extensometers; Proc. 14th Int. Conf. on Soil Mech. and Foundation Eng., Hamburg 1997, pp. 1527-1530
64. Vulliet L., Casanova N., Inaudi D., Osa-Wyser A., Vurpillot S. (1996): Development and laboratory tests of deformation fiber optic sensors for civil engineering applications; Proc. Int. Symp. on Lasers, Optics and Vision for Productivity in Manufacturing I, Europto Series, Besançon (France), 10-14 June 1996, SPIE Vol. 2782/ 97-108
65. Duba O., Vulliet L., Taruffi C. (1996) PDA practice in Switzerland: some unusual examples, Proc. STRESSWAVE 96, 5th Int. Conf. on the Application os Stress-Vawe Theory to Piles, Orlando USA, September 11-13 1996, pp. 246-254
66. Vulliet L., Bonnard Ch. (1996) The Chloewena landslide: prediction with a viscous model, Proc. 7th Int. Symposium on Landslides, 17-21 June 1996, Trondheim, Norway, Vol. 1, pp. 397-402
67. Mayoraz F., Cornu T., Vulliet L (1996): Using neural networks to predict slope movements, Proc. 7th Int. Symposium on Landslides, 17-21 June 1996, Trondheim, Norway, Vol. 1, pp. 295-300
68. Vulliet L. (1995): Predicting large displacements of landslides. Proc. NUMOG V, Numerical models in geomechanics, Davos (Switzerland), 6-9 September 1995, Balkema, pp. 527-532

69. Vulliet L., Inaudi D., Wyser A., Vurpillot S., Pflug L. (1995): Monitoring geostructures with interferometric fiber optic extensometers, Proc. 4th Int. Symp. on Field Measurements in Geomechanics, Bergamo, Italy, 10-12 April 1995, pp. 447-454
70. Laloui L., Vulliet L., Gruaz G. (1995): Influence de la succion sur le comportement mécanique d'un limon sableux; Proc. 1st Int. Conf. on Unsaturated Soils, Paris, 6-8 Sept 1995, Balkema, pp. 133-138
71. Noverraz F., Bonnard C., Vulliet L. (1995): Multidisciplinary study of monitoring data at La Frasse landslide, Proc. 11th Eur. Conf. on Soil Mech. and Found. Eng., Copenhagen, 28 May-1 June 1995, Vol. 6, pp. 139-144
72. Vulliet L., Zwahlen F., Chabloc O., Meyer A. (1995): The Vigner tunnel: an original design to reduce impact on groundwater flow, Proc. 11th Eur. Conf. on Soil Mech. and Found. Eng., Copenhagen, 28 May-1 June 1995, Vol. 8, pp. 189-194
73. Inaudi D., Vulliet L., Pflug L., Vurpillot S. (1995): Low coherence sensors for the monitoring of underground works", Proc. 1995 North American Conf. on Smart Structures and Materials, 26 February-3 March 1995, San Diego, USA, Vol. 244, pp. 170-178
74. Vulliet L., Fleischer H., Terentieff S. (1994): Long term relaxation test on a pile foundation, Proc. Int. Conf. on Design and Construction of Deep Foundations, US FHWA, December 6-8, 1994, Orlando, Florida, USA, Vol. III, pp. 1732-1743
75. Vulliet L. (1994): Le rôle des déformations dans les problèmes de stabilité, Publications de la Société suisse de mécanique des sols et des roches, Réunion de printemps, 29 avril 1994, Zürich, Vol 129, pp. 21-26
76. Samtani N., Desai C.S., Vulliet L. (1994): A viscoplastic model for creeping natural slopes, Proc. 8th Int. Conf. on Computer Methods and Advances in Geomechanics, Morgantown, West Virginia, USA, 22-28 May 1994, Vol. 3., pp. 2483-2488
77. Vulliet L., Chabloc O. (1994): Impact of a sunken freeway on groundwater conditions, Proc. 8th Int. Conf. on Computer Methods and Advances in Geomechanics, Morgantown, West Virginia, USA, 22-28 May 1994, Vol. 2, pp. 1293-1297
78. Stuckrath L., Vulliet L. (1992): Large-scale static and dynamic pile tests under laboratory-controlled conditions, Proc. 4th Int. Conf. on the Application of Stress-Wave Theory to piles, La Haye, 21-24 September 1992
79. Samtani N., Desai C.S., Vulliet L. (1991): Viscoplastic model of a clay using hierarchical approach, Proc. 3rd Int. Conf. on Constitutive Laws for Engineering Materials, Tucson, AZ, Jan 7-10, 1991, pp. 325-328
80. Vulliet L., Samtani N., Desai C.S. (1991): Material parameters for an elasto-viscoplastic law, Proc. 10th ECSMFE, Firenze, Italy 1991, Vol. 1, pp. 281-284
81. Vulliet L., Desai C.S. (1989): Viscoplasticity and finite elements for landslide analysis. Proc. XIIth Int. Conf. on Soil Mech. and Found. Eng., Rio de Janeiro, Brazil 1989, Vo. 2, pp. 801-806
82. Bourdeau P.L., Recordon E., Vulliet L., Pouget P., Pilot G., Delmas Ph. (1988): La stabilité des versants: évolutions récentes du calcul. Proc. 5th Int. Symp. on Landslides, Lausanne 1988, Vol.1, pp. 541-548
83. Vulliet L., Hutter K. (1988): Some constitutive laws for creeping soils and for rate-dependent sliding at interfaces. Proc. 6th Int. Conf. on Numerical Methods in Geomechanics, Innsbruck 1988, Austria, pp. 495-502
84. Vulliet L., Hutter K. (1988): A multi-layer, multi-sliding surface model for three-dimensional creeping slopes. Proc. 5th Int. Symp. on Lanslides, Lausanne 1988, Vol.1, pp.793-797
85. Dysli M., Vulliet L. (1988): Mesure quantitative de l'érosion de Berges, Proc. 5th Int. Symp. on Landslides, Lausanne 1988, Vol.1, pp. 405-410
86. Vulliet L., Recordon E. (1987): The effect of groundwater seepage on the movement of natural slopes. Proc. 9th Europ.Conf. on Soil Mech. and Found. Eng., Dublin 1987
87. Vulliet L., Rybisar J. (1986): Etude probabiliste de deux cas d'écoulements souterrains. CR de la Société Suisse de Méc. des Sols et des Roches, Lausanne 4-5 oct. 1985, No 112, pp. 37-40
88. Vulliet L., Rybisar J. (1984): Ecoulement souterrain permanent d'une nappe libre vers un puits - Approche probabiliste des zones de protection. CR 3ème Séminaire sur les Méthodes Probabilistes en Géotechnique, ISRF, EPF-Lausanne

OTHER PUBLICATIONS, CONFERENCES AND MEDIA PRESENCE (PARTIAL)

1. Vulliet L., « Urban and Regional Energy Planning : A Systemic Approach », Sysbat Conference 2015, Swiss Tech Convention Center, Lausanne, September 10, 2015
2. Interview of L. Vulliet in Journal Suisse des Entrepreneurs : « L'ingénieur doit être un humaniste », by Michel Buro, no 10, May 20, 2015
3. Vulliet L. (Editor). BG Magazine, 2015 Edition, with special report on Mobility. BG Consulting Engineers, Lausanne, 40 p.
4. Vulliet L. « Quelle politique migratoire après le 9 février ? ». A public conference organized by Centre Patronal vaudois at Beaulieu Conference Center, Lausanne, with Federal Councilor Simonetta Sommaruga. October 30, 2014.
5. Vulliet L., «Quel avenir pour les ingénieurs ? ». Conference at Rotary Club Lausanne, Lausanne Palace, February 21, 2014
6. Vulliet L. (Editor). BG Magazine, 2014 Edition, with special report on Megatrends. BG Consulting Engineers, Lausanne, 40 p.
7. Vulliet, L., « Acquérir une entreprise: un défi à la portée de chacun ? » Conference of the Centre Patronal Vaudois, Paudex, August 27, 2013
8. Interview of L. Vulliet in Le Temps (Swiss Newspaper). « On pourra toujours construire suffisamment », January 14, 2013
9. Vulliet L. (Editor). BG Magazine, 2013 Edition, with special report on Risk. BG Consulting Engineers, Lausanne, 40 p.
10. Vulliet L. and Alder J., « La relation entre le conseil d'administration et la direction générale », Swiss Board Institute, Geneva, January 31, 2013
11. Interview of L. Vulliet in L'Hebdo (Swiss weekly magazine), « Les infrastructures suisses sont dépassées », January 3, 2013
12. Vulliet L. (Editor). BG Magazine, 2012 Edition, with special report on Energy and an exclusive interview of Swiss Minister Doris Leuthard. BG Consulting Engineers, Lausanne, 48 p.
13. Interview of L. Vulliet in SwissEngineering. « Il faut redorer le blason des ingénieurs », February 12, 2012
14. Vulliet L., « Les bonnes pratiques et partage d'expérience », Académie des Administrateurs, Glion/Montreux, June 13-15, 2012
15. Vulliet L. «Construire sans défauts – vœu pieux ou réalité?». Podium discussion moderated by F. Leutenegger. Introduction by Federal Councilor J. Schneider-Ammann, Swissbau, Basel, January 17, 2012
16. Vulliet L., « Géotechnique : Transposition de l'Eurocodes 7 en normes nationales », Podium Discussion, 10^e Rencontre de l'ingénierie de la construction et de l'industrie, Paris, October 20, 2011
17. Vulliet L. (Editor). BG Magazine, 2011 Edition. BG Consulting Engineers, Lausanne, 40 p.
18. Bieri S., Ch. Eymann, L. Vulliet, H. Walles, Schlussbericht der Peer Review des IRGC (International Risk Governance Council) zuhanden Staatssekretariat für Bildung und Forschung SBF, Bern, 24. März 2011
19. Interview of L. Vulliet in TEC21 (SIA Newsmagazine), « «Es gibt keine ideale Struktur», 17-18/2011
20. Radio Interview of L. Vulliet (one hour), Radio Suisse Romande, by G. Pop (Les Petits Matins), December 14, 2010
21. L. Vulliet, conference on « Engineering Skills of Swiss Companies Involved in International Projects on Sustainable Development », Symposium SESEC IX, 8-10 November 2010, Lausanne
22. Interview of L. Vulliet in Chambre de Commerce d'Industrie et des Services de Genève, « Il y a une véritable difficulté à recruter des ingénieurs en Suisse », 2010
23. Radio Interview L. Vulliet (one hour), "Executive Life", World Radio Switzerland, 30 novembre 2010
24. Vulliet L. (Editor). BG Magazine, 2010 Edition, with an exclusive interview of former U.N. Chairman of the World Commission on Environment and Development Gro Harlem Brundtland. BG Consulting Engineers, Lausanne, 52 p.
25. L'Hebdo. Forum des 100. L. Vulliet nominated among « 100 personnalités qui font la Suisse romande », Leader Category, Lausanne, Mai 20, 2010
26. L. Vulliet (Editor). BG Magazine, 2009 Edition, with special report on Sustainability and an exclusive interview of EPFL President Patrick Aebischer. BG Consulting Engineers, Lausanne, 40 p.

27. Vulliet L. Point de vue : Une culture du risque face aux forces de la nature. *Revue Route et Trafic*, no 1-2 (2005), pp. 10-11
28. Vulliet, L., « Risque zéro, rêve impossible ? ». Television Interview, TSR, Geneva, April 6, 2005
29. Vulliet L., La formation à l'ENAC, ou le territoire en questions, *Tracés*, no 08, 21 avril 2004, pp. 30-32
30. Kern M., Vulliet L., Ammann W., Bonnard Ch. Ségrégation inverse dans les écoulements granulaires. *Förstliche Arbeitsgruppe Naturgefahren FAN -Agenda* no 2(2003), pp 24-26
31. Bonnard Ch., Vulliet L., Disaster resilient infrastructure chapter 5, Landslides, report IDNDR Programme Forum, Geneva, May 1999, pp 49-55.
32. Descoedres F., Dumont A. G., Parriaux A., Vulliet L., Dysli M., Robyr P., Fontana M., Franciosi G. Utilisation des matériaux d'excavation de tunnels dans le domaine routier. *Mandat de recherche ASTRA 1998/094 (52/98)* sur demande de l' Office fédéral des routes, mars 2002, 8 chapitres + Annexes
33. Lateltin O. (L. Vulliet member of Accompanying Committee). "Empfehlungen 1997 - Berücksichtigung der Massenbewegungsgefahren bei raumwirksamen Tätigkeiten", Bundesamt für Raumplanung BRP, Bundesamt für Wasserwirtschaft BWW, Bundesamt für Umwelt, Wald und Landschaft BUWAL
34. Vulliet L. (1996): Génie civil: la théorie par l'exemple; *Polyrama*, EPFL, Juin 1996, pp. 23-25
35. Vulliet L. (1994): Géotechnique: quelques problèmes non résolus; *Polyrama* (EPFL), No 97, juin 1994, pp. 24- 26

PHD THESIS SUPERVISION

1. Obrzud, R. F. Numerical modeling and neural networks to identify constitutive parameters from in situ tests. Ph.D. Thesis, no 4457, EPFL, 2009, 208 p.
2. Rascol E., Cyclic properties of sand : dynamic behaviour for seismic applications. Ph.D. Thesis, no 4546, EPFL, 2009, 360 p.
3. Koliji A., Mechanical behaviour of unsaturated aggregated soils. Ph.D. Thesis, no 4011, EPFL, 2008, 328 p.
4. Plumey, S., Interaction sol-structure dans le domaine des tranchées couvertes. Muttoni, Aurelio (dir.) ; Vulliet, Laurent (dir.) Thèse de doctorat EPFL, no 3714, 2007, 299 p.
5. Dysli M., Étude expérimentale du dégel d'un limon argileux : application aux chaussées et pergélisol alpins. Thèse de doctorat EPFL, no 3792, 2007, 438 p.
6. Rifa'i Ahmad, Mechanical testing and modelling of an unsaturated silt, with engineering applications. Thèse de doctorat EPFL, no 2612, 2002, 158 p.
7. Bardou E., Méthodologie de diagnostic des laves torrentielles sur un bassin versant alpin. Thèse de doctorat EPFL no 2479, 2002, 189 p. + 13 annexes
8. Mayoraz F., Comportement mécanique des milieux granulaires sous sollicitations cycliques: Application aux fondations de chausses. Thèse de doctorat EPFL, no 2488, 2001, 200p.
9. Bouchelaghem F., Injection d'un coulis de micro-ciment à travers un milieu poreux : modélisation et expérimentation. Thèse de doctorat EPFL, no 2433, 2001, 246 p. + CD Rom.
10. Kern M., Inverse grading in granular flow, Thèse de doctorat EPFL, no 2287, 2000, 298 p.
11. Huot F., Caractéristiques élastiques des sols. Du comportement pseudo-statique à la propagation des ultrasons. Thèse de doctorat UNIL, 1999, 414 p.
12. Klubertanz G., Zur hydromechanischen Kopplung in dreiphasigen porösen Medien : Modellbildung und Anwendung auf die Auslösung von Murgängen. Thèse de doctorat EPFL no 2027, 1999, 210p. + Annexe 108p.
13. Geiser F., Comportement mécanique d'un limon non saturé. Etude expérimentale et modélisation constitutive. Thèse de doctorat EPFL no 1942, Mars 1999, 244 p.
14. Samtani N.C., Constitutive modelling and finite element analysis of slowly moving landslides using hierarchical viscoplastic material model, Dissertation submitted to the Department of Civil Engineering and Engineering Mechanics in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The University of Arizona (co-advisor Prof. C.S. Desai), 1991.