

Antoinet, E., M. Senis, D. Billaux and D. Genevey. “Underground Tramway Passage Under a Railway Station at Viroflay,” in *Continuum and Distinct Element Modeling in Geomechanics — 2011 (Proceedings, 2nd International FLAC / DEM Symposium, Melbourne, February 2011)*, Paper No. 03-04, pp. 127-134. D. Sainsbury et al., Eds. Minneapolis: Itasca International Inc., 2011.

Jobmann, M., and D. Billaux. “Fractal Model for Permeability Calculation from Porosity and Pore Radius Information and Application to Excavation Damaged Zones Surrounding Waste Emplacement Boreholes in Opalinus Clay,” *Int. J. Rock Mech. Min.*, **47**, 583-589 (June 2010).

Damjanac, B., Z. Radakovic-Guzina, D. Billaux and A. Poutrel. “Liner Failure around a Tunnel or a Storage Cell in Callovo-Oxfordian Clay,” in *Clays in Natural & Engineered Barriers for Radioactive Waste Confinement (Proceedings, 4th International Meeting, March 2010): Abstracts*, pp. 837-838. Nantes: ANDRA (2010).

Bourdeau, C., D. Billaux and A. Chraïbi. “Déplacements d’un Barrage Sous l’Effet des Variations de Températures et de la Retenue / Displacements of a Dam with Variations of the Air and Water Temperatures and of the Reservoir Level” (in French), in *Insertion Des Grands Ouvrages dans Leur Environnement (Insertion of Large Civil Engineering Structures in the Environment, Proceedings, JNGG’08, Nantes, France, June 2008)*, pp. 411-418. Paris: Laboratoire Central des Ponts et Chaussées, 2008.

Bourdeau, C., D. Billaux and A. F. Chraïbi. “Thermo-Hydrromechanical Analysis of a Dam Using *FLAC3D* Software,” in *Continuum and Distinct Element Numerical Modeling in Geo-Engineering (Proceedings, 1st International FLAC / DEM Symposium, Minneapolis, August 2008)*, Paper No. 03-02. R. Hart et al., Eds. Minneapolis: Itasca Consulting Group, Inc., 2008.

Dedecker, F., P. Cundall, D. Billaux and G. Torsten. “Evaluation of Damage-Induced Permeability Using a Three-Dimensional Adaptive Continuum / Discontinuum Code (AC/DC),” *Phys. Chem. Earth*, **32**, 681-690 (2007).

Billaux, D., and H. Konietzky. “Key Issues in Discontinuum Modelling of Flow in Fractured Media,” in *Proceedings, 11th International Conference of the International Association of Computer Methods and Advances in Geomechanics (IACMAG, Turin, June 2005)*, pp. 361-371. G. Barla and M. Barla, Eds. Turin: Patron Editore, 2005.

Dedecker, F., and D. Billaux. “Evaluation of Damage-Induced Permeability in the Bure Site Using a Three Dimensional Adaptive Continuum / Discontinuum Code,” in *Using Natural and Engineering Clay-Based Barriers for the Containment of Radioactive Waste (Proceedings, International Symposium, ANDRA, Tours, March 2005)*.

Billaux, D., F. Dedecker and P. Cundall. “A Novel Approach to Studying Rock Damage: The Three Dimensional Adaptive Continuum / Discontinuum Code,” in *Rock Engineering: Theory and Practice (Proceedings, ISRM Regional Symposium EUROCK 2004 and 53rd Geomechanics Colloquy, Salzburg, Austria, October 2004)*, pp. 723-728. W. Schubert, Ed. Essen: Verlag Glückauf, 2004.

Hosni, A., S. Gentier, X. Rachez and D. Billaux. “3D-Hydrromechanical Modeling of Hydraulic Stimulation of Deep Geothermal Wells in Hot Fractured Rock at Soultz-Sous-Forêts (Alsace-France),” in *Numerical Modeling of Discrete Materials in Geotechnical Engineering, Civil Engineering & Earth Sciences (Proceedings, 1st International UDEC / 3DEC Symposium, Bochum, Germany, September 2004)*, pp. 139-144. H. Konietzky, Ed. Leiden: Balkema, 2004.

Young, R. P., D. S. Collins, J. Hazzard, A. Heath, W. S. Pettitt, C. Baker, D. Billaux, P. Cundall, D. Potyondy, F. Dedecker, C. Svemar and P. Lebon, “An Innovative 3-D Numerical Modelling Procedure for Simulating Repository-Scale Excavations in Rock — SAFETI,” presented at the *Euradwaste’04 Conference on Radioactive Waste Management Community Policy and Research Initiatives (Luxembourg, March 2004)*, Poster P37; in *Programme and Abstracts from the Sixth European Commission Conference on the Management and Disposal of Radioactive Waste (EURADWASTE ’04, Luxemburg, March 2004)*, Poster P37.

Dedecker, F., D. Billaux and S. Gentier. “Modeling of the Borehole Vicinity in a Hot Dry Rock Heat Exchanger System,” in *Numerical Modeling in Micromechanics via Particle Methods (Proceedings, 1st International PFC Symposium, Gelsenkirchen, Germany, November 2002)*, pp. 259-267. H. Konietzky, Ed. Lisse: Balkema, 2003.

Gentier, S., A. Hosni, A. Genter, D. Billaux, F. Dedecker and X. Rachez. “Hydraulic Stimulation of Geothermal Wells in HFR Systems: Approach Based on 3D Hydro-Mechanical Modeling,” in *Soil and Rock America 2003 (Proceedings, 39th U.S. Rock Mechanics Symposium, Cambridge, Massachusetts, June 2003)*, pp. 1471-1477. P. J. Culligan et al., Eds. Essen: Verlag Glückauf, 2003.

Paris B., D. Billaux, M. de Combarieu and H. Benabderrahmane. “Injection of an Hyperalkaline Solution in a Granite Fracture — Numerical Simulation of Coupled Flow, Transport and Geochemical Effects at the Grimsel Test Site (Switzerland),” presented at the SIAM Conference on Mathematical and Computational Issues in the Geosciences, Austin, Texas, March 2003.

Young, R. P., D. S. Collins, J. Hazzard, A. Heath, C. Baker, W. S. Pettitt, D. Billaux, P. Cundall, D. Potyondy, F. Dedecker and C. Svemar. “An Innovative 3-D Numerical Modelling Procedure for Simulating Repository-Scale Excavations in Rock — SAFETI,” in *The Performance of Radioactive Waste Geological Repositories (Proceedings, CLUSTER Conference on Impact of the EDZ, Luxembourg, 2003)*.

Billaux, D., X. Rachez, P. Varona, B. Virollet and A. Bernardet “Métro de Toulouse — Analyse 3D des Interactions Entre les Tunnels de la Ligne A et l’Excavation de la station Jean Jaurès,” in *Geotechnical Aspects of Underground Construction in Soft Ground*, pp. 373-378. Kastner et al., Eds. Guilloux: Spécifique Lyon, 2002.

Rachez, X., D. Billaux and R. Hart. “Slope Stability Analysis with an Integrated Shear Strength Reduction Algorithm”, in *Numerical Methods in Geotechnical Engineering*, pp. 731-736. Ed. Mestat: Presses de l’ENPC / LCPC, Paris, 2002.

Billaux, D., X. Rachez, C. Detournay and R. Hart, Eds. *FLAC and Numerical Modeling in Geomechanics — 2001 (Proceedings, 2nd International FLAC Conference, Lyon, France, October 2001)*. Lisse: Balkema, 2001.

Billaux, D., X. Rachez, R. Roberts and B. Paris. “Essais de Puits en Milieu Fracturé et Simulation Discrète,” in *Proceedings, Actes Des Journées Scientifiques ANDRA 1999 (Nancy, France, December 1999)*, pp. 203-219. Les Ulis: EDP Sciences, 2001.

Paris B., and D. Billaux. “Injection of a Hyperalkaline Solution in a Granite Fracture — Predictive Numerical Simulation of Coupled Transport and Geochemical Effects,” presented at the *SIAM Conference on Mathematical and Computational Issues in the Geosciences*, Boulder, Colorado, June 2001.

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Billaux, D., and F. Guérin. “An Optimization Procedure for Borehole Emplacement in Fractured Media,” in *Characterization and Evaluation of Sites for Deep Geological Disposal of Radioactive Waste in Fractured Rocks (Proceedings, 3rd Äspö International Seminar, Oskarsham, Sweden, June 1998)*, SKB Technical Report TR-98-10.

Billaux, D., E. Foerster and E. Antoinet. “Modelling of Soil-Geotextile Interaction for Waste Disposal,” in *Geomechanics 96 (Proceedings, International Conference, Roznov, Czech Republic, November 1996)*, pp. 259-263. Z. Rakowski, Ed. Rotterdam: Balkema, 1997.

Guérin, F., and D. Billaux. “On the Relationship Between Connectivity and the Continuum Approximation in Fracture Flow and Transport Modeling,” *Appl. Hydrogeology*, **2**, 31-34 (1994).

Konietzky, H., D. Billaux, P. Meney and R. Kastner. “Non-Linearities in Soil Mechanics — Case Histories,” in *Geomechanics 1993*, pp. 193-198. Z., Rakowski, Ed. Rotterdam: Balkema, 1994.

Konietzky, H., R. Hart and D. Billaux. “Mathematische Modellierung von geklüftetem Fels,” *Felsbau*, **12**(6), 395-400 (1994).

Billaux, D., and P. Cundall. “Simulation des Géomatériaux par la Méthode des Eléments Lagrangiens,” *Revue Française de Géotechnique*, **63**, 9-21 (1993).

Billaux, D., and B. Feuga. “Groundwater in Rock Masses,” in *Engineering in Rock Masses*, pp. 78-101. F. G. Bell, Ed. Oxford: Butterworth-Heinemann, 1992.

Billaux, D., and F. Guérin. “Connectivity and the Continuum Approximation in Fracture Flow Modelling,” in *High-Level Radioactive Waste Management (Proceedings, Fourth Annual International Conference, Las Vegas, April 1993)*, Vol. 2, pp. 1118-1122. New York: ASCE, 1993.

Billaux, D., and F. Davias. “Study of the Blocky Behavior of a Rock Mass Using Hydrogeology Oriented Fracture Generation,” in *Proceedings, ISRM Regional Conference on Fractured and Jointed Rock Masses (Lake Tahoe, June 1992)*, Vol. 2, pp. 264-268. Berkeley, California: Lawrence Berkeley Laboratory, 1992.

Chilès, J. P., F. Guérin, D. Billaux. “3-D Stochastic Simulation of Fracture Network and Flow at Stripa Conditioned on Observed Fractures and Calibrated on Measured Flow Rates,” in *Proceedings, 33rd Symposium on Rock Mechanics (Santa Fe, New Mexico, June 1992)*, pp. 533-542. J. R. Tillerson and W. R. Wawersik, Eds. Rotterdam: Balkema, 1992.

Billaux, D. “Hydrogéologie des Milieux Fracturés: Géométrie, Connectivité et Comportement Hydraulique,” Thèse de Doctorat, Ecole Nationale Supérieure des Mines de Paris, 1990; Document du BRGM 186. Orléans: BRGM, 1990.

Billaux, D. “Influence de la Connectivité d'un Réseau de Fractures sur sa Réponse à un Essai de Pompage,” in *Proceedings, International Symposium on Rock at Great Depth (Pau, France, August 1989)*, Vol. 1, pp. 473-480. V. Maury and D. Fourmaintraux, Eds. Rotterdam: Balkema, 1990.

Billaux, D., and S. Gentier. “Numerical and Laboratory Studies of Flow in a Fracture,” in *Proceedings, International Conference on Rock Joints (Loen, Norway, 1990)*, pp. 369-374. Rotterdam: Balkema, 1990.

Gentier, S., and D. Billaux. “Caractérisation en Laboratoire de l'Espace Fissural d'une Fracture,” in *Proceedings of the International Symposium on Rock at Great Depth (Pau, France, August 1989)*, Vol. 1, pp. 425-431. V. Maury and D. Fourmaintraux, Eds. Rotterdam: Balkema, 1990.

---

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Gentier, S., and D. Billaux. “Images d’Écoulement dans une Fracture Soumise à une Contrainte Normale,” in *Minutes des Quatrièmes Entretiens Jacques Cartier (Proceedings, Colloque Images et Matériaux, Saint-Etienne, 1990)*.

Billaux, D., and D. Burel. “Stress Measurements by Hydraulic Fracturing in BRGM,” in *Proceedings, 4th International Seminar on the Results of EC Geothermal Energy Research and Demonstration (Florence, April 1989)*, pp. 232-242. Dordrecht: Kluwer Academic Publications, 1989.

Billaux, D., and P. Fuller. “An Algorithm for Mesh Simplification Applied to Fracture Hydrology,” *Math. Geol.*, **21**(2), 221-232 (1989).

Billaux, D., J. P. Chilès, K. Hestir and J. Long. “Three-Dimensional Statistical Modelling of a Fractured Rock Mass — An Example From the Fanay-Augères Mine,” *Int. J. Rock Mech. Min. Sci.*, **26**(3-4), 281-299 (1989).

Gentier, S., D. Billaux and L. Van Vliet. “Laboratory Testing of the Voids of a Fracture,” *Rock Mech. Rock Eng.*, **22**(1), 149-157 (1989).

Billaux, D., K. Karasaki and J.C.S. Long. “Un Modèle Tridimensionnel des Écoulements dans des Chenaux,” in *Comptes-rendus du Colloque International Hydrogéologie et Sureté des Dépôts de Déchets Radioactifs et Industriels Toxiques (Orléans, June 1988)*, BRGM Document No. 160, pp. 139-148. Orléans: BRGM, 1988; BRGM Document No. 160, 1988.

Forbes, P. J., D. Billaux, J. G. De Gijt and D. A. Houghton. “Details of a Study Course on Stability Problems in South-East Asian Soils,” in *Asian Mining '88 (Proceedings, Conference, Kuala Lumpur, March 1988)*, pp. 59-72. London: IMM, 1988.

Long, J. C. S., and D. Billaux. “From Field Data to Fracture Network Modelling: An Example Incorporating Spatial Structure,” *Water Resources Res.*, **23**(7), 1201-1216 (1987).

Billaux, D., B. Feuga and S. Gentier. “Étude Théorique et en Laboratoire du Comportement d'une Fracture Rocheuse sous Contrainte Normale,” *Revue Française de Géotechnique*, **26**, 21-29 (1984).