

Radakovic-Guzina, Z., B. Damjanac and H. A. Kasani. “Numerical Study of Performance of Placement Rooms for Deep Geological Isolation of High-Level Radioactive Waste,” in *Proceedings, International Conference on Radioactive Waste Management: Solutions for a Sustainable Future (Vienna, Austria, November 2021)*, IAEA-CN-294. 2021.

Furtney, J., B. Damjanac and E. Hardin. “Numerical Investigation of Deformation, Mass Flow, and Heat Transfer During a Criticality Event in a Dual-Purpose Canister,” in *Proceedings, WM2021 (Phoenix, Arizona, March 2021)*, 21310. 2021.

Furtney, J. K., B. Damjanac, R. Le Goc, S. De Simone and B. Pinier. “Three-Dimensional Explicit Fracture Representation to Better Understand Thermo-Hydro-Mechanical Effects in Enhanced Geothermal Reservoirs,” in *Proceedings, 55th U.S. Rock Mechanics/Geomechanics Symposium (ARMA, Houston, Texas, June 2021)*, ARMA 21-1967. Alexandria, Virginia: ARMA, 2021.

Cheng, Z., and B. Damjanac. “Extension of Mohr-Coulomb Model Considering Opening and Closure of Tension Cracks,” in *Proceedings, 55th U.S. Rock Mechanics/Geomechanics Symposium (ARMA, Houston, Texas, June 2021)*, ARMA 21-1157. Alexandria, Virginia: ARMA, 2021.

Damjanac, B., M. Torres and C. Detournay. “Modeling the Effect of a Natural Fracture Network and Its Properties on Multi-Stage Stimulation,” in *Proceedings, Unconventional Resources Technology Conference (URTeC, Houston, Texas, July 2021)*, URTeC: 5285. 2021.

Wang, T., F. Zhang, J. Furtney and B. Damjanac. “A Review of Methods, Applications and Limitations for Incorporating Fluid Flow in the Discrete Element Method,” *Journal of Rock Mechanics and Geotechnical Engineering*, In Press, 2021.

Xing, P., B. Damjanac, J. Moore and J. McLennan. “Flowback Test Analyses at the Utah Frontier Observatory for Research in Geothermal Energy (FORGE) Site,” *Rock Mechanics and Rock Engineering*, <https://doi.org/10.1007/s00603-021-02604-x>. 2021.

Xing, P., B. Damjanac, Z. Radakovic-Guzina, A. Finnilla, R. Podgorney, J. Moore, and J. McLennan. “Numerical Simulation of Hydraulic Fracturing Stimulation of the Enhanced Geothermal System Well at Utah FORGE Site,” in *Proceedings, 55th U.S. Rock Mechanics/Geomechanics Symposium (ARMA, Houston, Texas, June 2021)*, ARMA 21-1168. Alexandria, Virginia: ARMA, 2021.

Xing, P., B. Damjanac, Z. Radakovic-Guzina, A. Finnilla, R. Podgorney, J. Moore, and J. McLennan. “Numerical Simulation of Injection Tests at Utah FORGE Site,” in *Proceedings, 46th Workshop on Geothermal Reservoir Engineering (Stanford University, Stanford, California, February 2021)*, SGP-TR-218. 2021.

Ghazvinian, E., B. Damjanac, L. Lorig, P. Cavieres and A. Madrid. “Back Analysis of the Effect of Hydraulic Fracturing Preconditioning on Mining-Induced Seismicity at the Main Access of New Mine Level Project, CODELCO Chile - El Teniente Division,” in *MassMin 2020 (Proceedings, Eight International Conference & Exhibition on Mass Mining, Virtual Conference, December 2020)*, 249–263. Santiago: University of Chile, 2020.

Damjanac, B., C. Detournay, and P. Cundall. “Numerical Simulation of Hydraulically Driven Fractures,” in Shen, B., Stephansson, O., Rinne, M. (eds), *Modelling Rock Fracturing Processes*, pp. 531–561. Cham, Switzerland: Springer. doi:10.1007/978-3-030-35525-8_20. 2020.

- Zhao, K., D. Stead, H. Kang, B. Damjanac, D. Donati and F. Gao. “Investigating the Interaction of Hydraulic Fracture with Pre-Existing Joints Based on Lattice Spring Modeling,” *Computers and Geotechnics*, **122**, 103534. 2020.
- Wan, X., V. Rasouli, B. Damjanac and H. Pu. “Lattice Simulation of Hydraulic Fracture Containment in the North Perth Basin,” **188**, 106904. 2020.
- Bastola, S., M. Cai and B. Damjanac. “Slope Stability Assessment of an Open Pit Using Lattice-Spring-Based Synthetic Rock Mass (LS-SRM) Modeling Approach,” *Journal of Rock Mechanics and Geotechnical Engineering*, **12**(5), 927–942, 2020.
- Furtney, J., A. Riahi, B. Damjanac and E. Hardin. “A Numerical Investigation of the Mechanical Response of Dual-Purpose Canisters to Internal Pressurization,” in *Applied Numerical Modeling in Geomechanics 2020 (Proceedings, 5th International Itasca Symposium, February 2020)*, Paper 12-01. Minneapolis, Minnesota: Itasca, 2020.
- Mehrabifard, A., E. Eberhardt and B. Damjanac. “Numerical Simulation of a Laboratory Experiment Testing Hydraulic Fracture Initiation Monitored by Acoustic Emission,” in *Applied Numerical Modeling in Geomechanics 2020 (Proceedings, 5th International Itasca Symposium, February 2020)*, Paper 07-03. Minneapolis, Minnesota: Itasca, 2020.
- Varun, B. Damjanac and E. Hardin. “Modeling Transport of Corrosion Products in Multi-Purpose Canisters Using PFC3D,” in *Applied Numerical Modeling in Geomechanics 2020 (Proceedings, 5th International Itasca Symposium, February 2020)*, Paper 12-05. Minneapolis, Minnesota: Itasca, 2020.
- Varun, A. Riahi, B. Damjanac and E. Hardin. “Modeling Degradation of Dual-Purpose Canisters Using 3DEC,” in *Applied Numerical Modeling in Geomechanics 2020 (Proceedings, 5th International Itasca Symposium, February 2020)*, Paper 12-02. Minneapolis, Minnesota: Itasca, 2020.
- Huang, L., J. Liu, F. Zhang, H. Fu, H. Zhu, and B. Damjanac. “3D Lattice Modeling of Hydraulic Fracture Initiation and Near-Wellbore Propagation for Different Perforation Models,” *Journal of Petroleum Science and Engineering*, **191**. 2020.
- Zhang, F., B. Damjanac and S. Maxwell. “Investigating Hydraulic Fracturing Complexity in Naturally Fractured Rock Masses Using Fully Coupled Multiscale Numerical Modeling,” **52**, 5137–5160. 2019.
- Huang, L., J. Liu, F. Zhang, D. E. Dontsov, and B. Damjanac. “Exploring the influence of rock inherent heterogeneity and grain size on hydraulic fracturing using discrete element modeling,” *International Journal of Solids and Structures*, **176-177**, 207–220. 2019.
- Bakhshi, E., V. Rasouli, A. Ghorbani, M. Fatehi Marji, B. Damjanac, X. Wan. “Lattice Numerical Simulations of Lab-Scale Hydraulic Fracture and Natural Interface Interaction,” *Rock Mechanics and Rock Engineering*, **52**(5) 1315–1337. 2019.
- Zhang, F., B. Damjanac, and S. Maxwell. “Investigating Hydraulic Fracturing Complexity in Naturally Fractured Rock Masses Using Fully Coupled Multiscale Numerical Modeling,” *Rock Mechanics and Rock Engineering*, **52**(12) 5137–5160. 2019.
- Riahi, A., W. Pettitt, B. Damjanac, Varun, D. Blanksma. “Numerical Modeling of Discrete Fractures in a Field-Scale FORGE EGS Reservoir,” *Rock Mechanics and Rock Engineering*, **52**(12) 5245–5258. 2019.

Akash, O., R. Vamegh, N. Djabelkhir, F. Badrouchi, B. Damjanac and F. Zhang. “Lattice Simulations of Hydraulic Fracture Reorientation from Perforations,” in *Proceedings, 53rd U.S. Rock Mechanics/Geomechanics Symposium (ARMA, New York City, June 2019)*, ARMA 19-240. Alexandria, Virginia: ARMA, 2019.

Badrouchi, F., X. Wan, I. Bouchakour, O. Akash, V. Rasouli, and B. Damjanac. “Lattice Simulation of Fracture Propagation in the Bakken Formation,” in *Proceedings, 53rd U.S. Rock Mechanics/Geomechanics Symposium (ARMA, New York City, June 2019)*, ARMA 19-250. Alexandria, Virginia: ARMA, 2019.

Djabelkhir, N., X. Song, W. Xincheng, A. Omar, V. Rasouli, and B. Damjanac. “Notch Driven Hydraulic Fracturing in Open Hole Completions: Numerical Simulations of Lab Experiments,” in *Proceedings, 53rd U.S. Rock Mechanics/Geomechanics Symposium (ARMA, New York City, June 2019)*, ARMA 19-361. Alexandria, Virginia: ARMA, 2019.

Qiu, D., R. Vamegh, B. Damjanac and X. Wan. “Narrow versus Wide Fairway Fracture Geometry,” in *Proceedings, 53rd U.S. Rock Mechanics/Geomechanics Symposium (ARMA, New York City, June 2019)*, ARMA 19-1555. Alexandria, Virginia: ARMA, 2019.

Wan, X., V. Rasouli, B. Damjanac, M. Torres, and D. Qiu. “Numerical Simulation of Integrated Hydraulic Fracturing, Production and Refracturing Treatments in the Bakken Formation,” in *Proceedings, 53rd U.S. Rock Mechanics/Geomechanics Symposium (ARMA, New York City, June 2019)*, ARMA 19-104. Alexandria, Virginia: ARMA, 2019.

Varun, B. Damjanac, L. Lorig, J. Aglawe and R. R. Mallick. “Dynamic Analyses of Side Abutments of Chenab Bridge,” in *Proceedings, 16th Symposium on Earthquake Engineering (Roorkee, India, December 2018)*, Paper No. 224. 2018.

Blanksma, D., K. Blake, W. Pettitt, A. Sabin, Varun, B. Damjanac. “Using Borehole Induced Structure Measurements at Fallon FORGE Combined with Numerical Modeling to Estimate In-Situ Stresses,” in *Proceedings, 43th Workshop on Geothermal Reservoir Engineering (Stanford University, Stanford, California, February 2018)*, SGP-TR-213. 2018.

Pettitt, W, A. Riahi, J. Hazzard, B. Damjanac, D. Blanksma, Varun, J. Furtney, D. Blankenship, E. Sonnenthal, and M. Kennedy. “Conceptual Reservoir Design at Fallon FORGE Using Geomechanical Models with Natural and Induced Fractures,” in *GRC Transactions (Proceedings, Geothermal Resources Council Annual Meeting & Expo, Reno, Nevada, October 2018)*, Vol. 42, GRC, 2018.

Xing, P., K. Yoshioka, J. Adachi, A. El-Fayoumi, B. Damjanac, and A. P. Bungler. “Lattice Simulation of Laboratory Hydraulic Fracture Containment in Layered Reservoirs,” *100*, 62–75. 2018.

Corkum, A. G., B. Damjanac and T. Lam. “Variation of Horizontal in Situ Stress with Depth for Long-Term Performance Evaluation of the Deep Geological Repository Project Access Shaft,” *107*, 75–85. 2018.

Damjanac, B., S. Maxwell, A. Pirayehgar and M. Torres. “Numerical Study of Stress Shadowing Effect on Fracture Initiation and Interaction Between Perforation Clusters,” in *Proceedings, URTEC 2019 (Unconventional Resources Technology Conference, Houston, Texas, July 2018)*. Unconventional Resources Technology Conference, 2018.

Riahi, A., W. Pettitt, B. Damjanac, Varun and D. Blanksma. “Numerical Modeling of Discrete Fractures in a Field-Scale FORGE EGS Reservoir,” in *Proceedings, 52nd U.S. Rock Mechanics/Geomechanics Symposium (ARMA, June 2018, Seattle, Washington)*, ARMA 18-1197. Alexandria, Virginia: ARMA, 2018.

Riahi, A., Varun and B. Damjanac. “DFN Simplifying Approaches Applied to the Discrete Element Modeling of EGS Reservoirs,” in *DFNE 2018 (Proceedings, 2nd International Discrete Fracture Network Engineering Conference, Seattle, Washington, June 2018)*, 18–001213. ARMA, 2018.

Ayling, B., D. Blankenship, P. Sullivan, M. Kennedy, E. L. Majer, M. Villavert, E. Sonnenthal, J. Tang, P. Dobson, N. Hinz, J. Faulds, W. Hammond, E. Mlawsky, K. Blake, A. Tiedeman, A. Sabin, M. Lazaro, J. Akerley, J. Nordquist, M. Sophy, D. L. Siler, J. O. Kaven, G. Phelps, S. Hickman, J. Glen, C. Williams, A. Robertson-Tait, L. Hackett, W. Pettitt, A. Riahi, D. Blanksma, B. Damjanac, J. Hazzard, M. Eneva, J. B. Witter, J. Queen, M. Fortuna. “Phase 2 Update for the Fallon FORGE Site, Nevada, USA,” in *Proceedings, 43rd Workshop on Geothermal Reservoir Engineering (Stanford University, Stanford, California, February 2018)*, SGP-TR-213. 2018.

Damjanac, B. “Long-Term Strength of Crystalline Rocks,” in *Progressive Rock Failure Conference and Workshop 2017 (Monte Verità, Switzerland, June 2017)*, 150–153. Zurich: ETH Zurich, 2017.

Riahi, A., P. Moncarz, W. Kolbe and B. Damjanac. “Innovative Closed-Loop Geothermal Well Designs Using Water and Super Critical Carbon Dioxide as Working Fluids,” in *Proceedings, 42nd Workshop on Geothermal Reservoir Engineering (Stanford University, Stanford, California, February 2017)*, SGP-TR-212. 2017.

Damjanac, B. and P. Cundall. “Effect of Jointing and Initial Stress State on Coupled Hydro-Mechanical Processes in Rock Masses,” *Hydraulic Fracturing Journal*, 4(1), 92-100. 2017.

Cundall, P. A., B. Damjanac and Varun. “Considerations on Slope Stability in a Jointed Rock Mass,” in *50th US Rock Mechanics/Geomechanics Symposium (Proceedings, ARMA, Houston, June 2016)*, ARMA-16-0339. Alexandria, Virginia: ARMA, 2016.

Damjanac, B., Z. Radakovic-Guzina and T. M. Lam. “Long-Term Stability Analysis of DGRs in Crystalline and Sedimentary Settings,” in *3rd Canadian Conference on Nuclear Waste Management, Decommissioning and Environmental Restoration (Ottawa, September 2016)*. Toronto: Canadian Nuclear Society, 2016.

Detournay, C., P. Cundall and B. Damjanac. “A Study of Fracture Interference in 3D with XSite,” in *Applied Numerical Modeling in Geomechanics — 2016 (Proceedings, 4th Itasca Symposium on Applied Numerical Modeling, Lima, March 2016)*, pp. 607–616, P. Gómez, C. Detournay, R. Hart, and M. Nelson, Eds. Minneapolis: Itasca Consulting Group, Inc., 2016.

Damjanac, B., and P. Cundall. “Application of Distinct Element Methods to Simulation of Hydraulic Fracturing in Naturally Fractured Reservoirs,” *Computers and Geotechnics*, 71, 283-294, 2016.

Riahi, A., Z. Radakovic-Guzina, B. Damjanac and T. Katsaga. “Three-Dimensional Numerical Investigation of the Effect of Injection Method on Shear Stimulation of Enhanced Geothermal Reservoirs,” in *Proceedings, 49th US Rock Mechanics/Geomechanics Symposium (ARMA, San Francisco, June 2015)*, ARMA 15-869. Alexandria, Virginia: ARMA, 2015.

Damjanac, B., P. Cundall and C. Detournay. “Application of Particle and Lattice Codes to Simulation of Hydraulic Fracturing,” *Comp Part Mech*, doi: 10.1007/s40571-015-0085-0. 2015.

Damjanac, B., D. O. DeGagne, T. Katsaga, A. Riahi and B. Valley. “Hydraulic Fracturing Operations in Mining: Conceptual Approach and DFN Modeling Example,” *Mining Technology*, 124(4), 255-266. 2015.

- Damjanac, B., S. C. Maxwell and F. Zhang. “Geomechanical Modeling of Induced Seismicity Resulting from Hydraulic Fracturing,” *The Leading Edge*, **34**(6), 678-680, 682-683, 2015.
- Damjanac, B., S. C. Maxwell and F. Zhang. “Modeling of Fault Activation Induced by Hydraulic Fracturing – A Horn River Basin Case Study,” *Hydraulic Fracturing Journal*, **2**(1), 26-33, January, 2015.
- Damjanac, B., M. Pierce and M. Board. “Methodology for Stability Analysis of Large Room-And-Pillar Panels,” in *Proceedings, 48th US Rock Mechanics/Geomechanics Symposium (Minneapolis, Minnesota, June 2014)*, ARMA 14-7660. Alexandria, Virginia: ARMA, 2014.
- Damjanac, Branko, W. Pettitt and J. Hazzard. “Fracture Network Engineering for Hydraulic Fracturing,” in *Proceedings, 1st International Symposium on Energy Challenges and Mechanics (Aberdeen, Scotland, UK, July 2014)*. Journal of Energy Challenges & Mechanics, 2014.
- Riahi, A., J. Furtney and B. Damjanac. “Evaluation of Optimum Well Positioning in Enhanced Geothermal Reservoirs using Numerical Modeling,” in *Transactions — Geothermal Resources Council 38 (Proceedings, 38th GRC Meeting, Portland, Oregon, September 28-October 1, 2014)* pp. 325-330. 2014.
- Damjanac, B. “Discrete Element Modeling of Fractured Reservoirs,” presented at ARMA, 48th US Rock Mechanics/Geomechanics Symposium (Minneapolis), 2014.
- Damjanac, B., and P. Cundall. “Application of Distinct Element Methods to Simulation of Hydraulic Fracturing in Naturally Fractured Reservoirs,” presented at *HYDROFRAC 2014 (Proceedings, International Conference on Recent Advances in Numerical Simulation of Hydraulic Fracture, Rzeszów, Poland, 2014)*. 2014.
- Katsaga, T., A. Riahi and B. Damjanac. “Integration of Three-Dimensional Discrete Fracture Network in Numerical Modelling of Hydraulic Treatments,” in *DFNE 2014 (Proceedings, International Discrete-Fracture Network Engineering Conference, Vancouver, Canada)*. Paper No. DFNE 2014-159. CARMA, ARMA, 2014.
- Damjanac, B., P. A. Cundall and Varun. “Validation of Lattice Approach for Rock Stability Problems,” in *47th US Rock Mechanics / Geomechanics Symposium (San Francisco, California, June 2013)*. Paper No. ARMA 13-488. Alexandria, Virginia: ARMA, 2013.
- Damjanac, B., C. Detournay, P. A. Cundall and Varun. “Chapter 41: Three-Dimensional Numerical Model of Hydraulic Fracturing in Fractured Rock Masses,” in *Effective and Sustainable Hydraulic Fracturing*. doi: 10.5772/56313, A. P. Bunger, J. McLennan, and R. Jeffrey, Eds. InTech, 2013.
- Damjanac, B., and Varun. “Seismic Stability of Large Open Pit Slopes and Pseudo-Static Analysis,” in *Slope Stability 2013 (Proceedings, The 2013 International Symposium on Slope Stability in Open Pit Mining and Civil Engineering, Brisbane, Australia, September 2013)*, pp. 1203-1216, P. Dight, Ed. Perth, Australia: ACG, 2013.
- Detournay, C., P. A. Cundall and B. Damjanac. “Hydraulic Fracture Simulation: Comparison with Exact Solutions,” in *Research and Applications in Structural Engineering, Mechanics and Computation (Proceedings, SMEC 2013, Cape Town, South Africa, September 2013)*, pp. 603-608, A. Zingoni, Ed. Leiden, Netherlands: CRC Press/Balkema, 2013.
- Diederichs, M. et al. “Ultra-Long-Term Geomechanics Design for a Deep Geological Repository,” in *Proceedings, 47th US Rock Mechanics / Geomechanics Symposium (San Francisco, California, June 2013)*. ARMA 13-532. Alexandria, Virginia: ARMA, 2013.

Hazzard, J. F., and B. Damjanac. "Further Investigations of Microseismicity in Bonded Particle Models," in *Continuum and Distinct Element Numerical Modeling in Geomechanics - 2013 (Proceedings, 3rd International FLAC/DEM Symposium, Hangzhou, China, October 2013)*. Paper: 06-01, H. Zhu, C. Detournay, R. Hart, and M. Nelson, Eds. Minneapolis: Itasca International, Inc., 2013.

Riahi, A., and B. Damjanac. "Numerical Study of the Interaction between Injection and the Discrete Fracture Network in Enhanced Geothermal Reservoirs," in *Proceedings, 47th US Rock Mechanics / Geomechanics Symposium (San Francisco, California, June 2013)*. ARMA 13-333. Alexandria, Virginia: ARMA, 2013.

Riahi, A., and B. Damjanac. "Chapter 13: Numerical Study of Interaction between Hydraulic Fracture and Discrete Fracture Network," in *Effective and Sustainable Hydraulic Fracturing*, doi: 10.5772/56416, A. P. Bungler, J. McLennan, and R. Jeffrey, Eds. InTech, 2013.

Zhang, F., B. Damjanac and H. Huang. "Coupled Discrete Element Modeling of Fluid Injection Into Dense Granular Media," *J. Geophys. Res. Solid Earth*, **118**, 1-20, 2013.

Damjanac, B., D. Martin, M. Diederich, D. McCreath and T. Lam. "Long-Term Stability for a Proposed Nuclear Waste Deep Geological Repository: Bruce Nuclear Site, Ontario, Canada," in *Rock Engineering and Technology for Sustainable Underground Construction — EUROCK (Proceedings, ISRM International Symposium, Stockholm, May 2012)*. Stockholm: Rock Engineering Research Foundation & Swedish National Group of ISRM (BeFo). 2012.

Han, Y., B. Damjanac and N. Nagel. "A Microscopic Numerical System for Modeling Interaction Between Natural Fractures and Hydraulic Fracturing," in *46th U.S. Rock Mechanics / Geomechanics Symposium (Proceedings, ARMA, Chicago, June 2012)*. Paper No. 12-238. Alexandria, Virginia: ARMA, 2012.

Hazzard, J., B. Damjanac, C. Detournay and L. Lorig. "Numerical Investigation of Flow Regimes in Fractured Rock Slopes," in *21st Canadian Rock Mechanics Symposium: RockEng12 — Rock Engineering for Natural Resources (Proceedings, CARMA, Edmonton, Canada, May 2012)*, pp. 161-168, C. Hawkes, Ed. Westmount, Quebec: CARMA, CIMICM, 2012.

Pettitt, W. S., J. F. Hazzard, B. Damjanac, Y. H. Han, M. Pierce, T. Katsaga and P. A. Cundall. "Microseismic Imaging and Hydrofracture Numerical Simulations," in *21st Canadian Rock Mechanics Symposium: RockEng12 — Rock Engineering for Natural Resources (Proceedings, CARMA, Edmonton, Canada, May 2012)*, pp. 549-560, C. Hawkes, Ed. Westmount, Quebec: CARMA, CIMICM, 2012.

Zhang, F., H. Huang and B. Damjanac. "DEM/Pore Network Modeling of Fluid Injection Into Granular Media," in *46th US Rock Mechanics / Geomechanics Symposium (Proceedings, ARMA, Chicago, June 2012)*. ARMA 12-621. Alexandria, VA: ARMA, 2012.

Gil, I., N. Nagel, M. Sanchez-Nagel and B. Damjanac. "The Effect of Operational Parameters on Hydraulic Fracture Propagation in Naturally Fractured Reservoirs — Getting Control of the Fracture Optimization Process," in *CD Proceedings, ARMA 45th U.S. Rock Mechanics / Geomechanics Symposium (San Francisco, June 2011)*, Paper No. 11-391. A. Iannacchione et al., Eds. Alexandria, Virginia: ARMA, 2011.

Hazzard, J., B. Damjanac, C. Detournay and L. Lorig. "Developing Rules of Thumb for Groundwater Modelling in Large Open Pit Mine Design," in *2011 Pan-Am CGS Geotechnical Conference (Proceedings, Geo-Innovation Addressing Global Challenges, Toronto, Ontario, Canada, October 2011)*. Canada: Canadian Geotechnical Society, 2011.

Hazzard, J., B. Damjanac, L. Lorig and C. Detournay. "Guidelines for Groundwater Modelling in Large Open Pit Mine Design," in *Slope Stability 2011 (Proceedings, Int. Symp. on Rock Slope in Open Pit Mining and*

Civil Engineering, Vancouver, September 2011), Paper No. 114. E. Eberhardt and D. Stead, Eds. Vancouver: Canada Rock Mechanics Association, 2011.

Nagel, N., B. Damjanac, X. Garcia and M. Sanchez-Nagel. “Simulating Hydraulic Fracturing in Real Fractured Rock — Overcoming the Limits of Pseudo3D Models,” presented at the Canadian Unconventional Resources Conference (Calgary, Alberta, Canada, November 2011). Canadian Society for Unconventional Gas / Society of Petroleum Engineers, Paper CSUG/SPE 148957-PP. 2011.

Nagel, N. B., I. Gil, M. A. Sanchez-Nagel and B. Damjanac. “Simulating Hydraulic Fracturing in Real Fractured Rock — Overcoming the Limits of Pseudo3D Models,” in *Proceedings, SPE Hydraulic Fracturing Technology Conference (The Woodlands, Texas, January 2011)*, SPE Paper No. 140480. Richardson, Texas: SPE, 2011.

Nagel, N., B. Damjanac, X. Garcia and M. Sanchez-Nagel. “Discrete Element Hydraulic Fracture Modeling — Evaluating Changes in Natural Fracture Aperture and Transmissivity,” presented at the Canadian Unconventional Resources Conference (Calgary, Alberta, Canada, November 2011). Society of Petroleum Engineers CSUG/SPE 148957-PP. 2011.

Pettitt, W., M. Pierce, B. Damjanac, J. Hazzard, L. Lorig, C. Fairhurst, I. Gil, M. Sanchez, N. Nagel, J. Reyes-Montes and R. P. Young. “Fracture Network Engineering for Hydraulic Fracturing,” *The Leading Edge*, 30(8), 844-853, doi: 10.1190/1.3626490. 2011.

Damjanac, B., and C. Fairhurst. “Evidence for a Long-Term Strength Threshold in Crystalline Rock,” *Rock Mech. Rock Eng.*, 43, 513-531, doi: 10.1007/s00603-010-0090-9. 2010.

Damjanac, B., I. Gil, M. Pierce, M. Sanchez, A. Van As and J. McLennan. “A New Approach to Hydraulic Fracturing Modeling in Naturally Fractured Reservoirs,” in *Proceedings, 44th U.S. / 5th U.S.-Canada Rock Mechanics Symposium (Salt Lake City, June 2010)*, Paper No. ARMA 10-400. Alexandria, Virginia: ARMA, 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.

Gil, I., B. Damjanac, N. Nagel and Q. Guo. “Geomechanical Evaluation of Solids Injection,” in *Proceedings, 44th U.S. / 5th U.S.-Canada Rock Mechanics Symposium (Salt Lake City, June 2010)*, Paper No. ARMA 10-399. Alexandria, Virginia: ARMA, 2010.

Lorig, L., P. A. Cundall, B. Damjanac and S. Emam. “A Three-Dimensional Model for Rock Slopes Based on Micromechanics,” in *Proceedings, 44th U.S. Rock Mechanics Symposium / 5th U.S.-Canada Rock Mechanics Symposium (Salt Lake City, June 2010)*, Paper No. 10-163. Alexandria, Virginia: ARMA, 2010.

McLennan, J., N. Zhao, S. Thakur, M. Deo, I. Gil and B. Damjanac. “Modeling Fluid Invasion and Hydraulic Fracture Propagation in a Naturally Fractured Rock, a Three Dimensional Approach,” in *Proceedings, 2010 SPE International Symposium and Exhibition on Formation Damage Control (Lafayette, Louisiana, February 2010)*, SPE Paper No. 127888. Richardson, Texas, 2010.

Pettitt, W., M. Pierce, B. Damjanac, L. Lorig and C. Fairhurst. “Fracture Network Engineering and Enhanced Geothermal Systems,” *Geoth. Res. T.*, **34**, 419-426. 2010.

Cundall, P. A., and B. Damjanac. “A Comprehensive 3D Model for Rock Slopes Based on Micromechanics,” in *Slope Stability 2009 (Proceedings, Universidad de Los Andes, Santiago, November 2009)*.

Board, M., B. Damjanac and M. Pierce. “Development of a Methodology for Analysis of Instability in Room and Pillar Mines,” in *Deep Mining 07 (Proceedings, Fourth International Seminar on Deep and High Stress Mining, Perth, Australia, November 2007)*, pp. 273-282. Y. Potvin, Ed. Perth: Australian Centre for Geomechanics, 2007.

Damjanac, B., M. Board, M. Lin, D. Kicker and J. Leem. “Mechanical Degradation of Emplacement Drifts at Yucca Mountain — A Modeling Case Study, Part II: Lithophysal Rock,” *Int. J. Rock Mech. Min. Sci.*, **44**, 368-399. 2007.

Fairhurst, C., B. Damjanac and T. Brandshaug. “Rock Mass Strength and Numerical ‘Experiments’,” in *Publications of the Geotechnical Institute No. 2006-5 (Proceedings, 35 Geomechanics Colloquium, November 2006)*, pp. 1-20. Freiberg, Germany: Technical University Mining Academy Freiberg, 2007.

Gaffney, E. S., B. Damjanac and G. A. Valentine. “Localization of Volcanic Activity: 2. Effects of Pre-Existing Structure,” *EPSL*, **263**, 323-338. 2007.

Lin, M., D. Kicker, B. Damjanac, M. Board and M. Karakouzian. “Mechanical Degradation of Emplacement Drifts at Yucca Mountain — A Modeling Case Study, Part I: Nonlithophysal Rock,” *Int. J. Rock Mech. Min. Sci.*, **44**, 351-367. 2007.

Damjanac, B., P. A. Cundall and T. Brandshaug. “Itasca Presentations at the Menlo Park Workshop, August 23-24, 2004,” in *Report of the Workshop on Extreme Ground Motions at Yucca Mountain, August 23-25, 2004*, U.S. Geological Survey, USGS Open-File Report 2006-1277. T. C. Hanks et al., Eds. Reston, Virginia: USGS, 2006.

Gaffney, E., and B. Damjanac. “Localization of Volcanic Activity: Topographic Effects on Dike Propagation, Eruption and Conduit Formation,” *Geophys. Res. Lett.*, **33**, L14313, doi: 10.1029/2006GL026852. 2006.

Leem, J., M. Lin, Y. Sun, D. C. Kicker and B. Damjanac. “Thermal-Hydrologic-Mechanical Study of Pre-Closure Off-Normal Thermal Scenarios at the Proposed Yucca Mountain Nuclear Waste Repository,” in *Alaska Rocks 2005 — Rock Mechanics for Energy, Mineral and Infrastructure Development in the Northern Regions (Proceedings, University of Alaska-Anchorage, June 2005)*, Paper No. ARMA/USRMS 05-837. G. Chen et al., Eds. University of Alaska-Fairbanks: ARMA, 2005.

Lin, M., M. P. Board, D. C. Kicker, J. Leem, B. Damjanac and D. C. Buesch. “Assessment of Drift Stability with Consideration of Spatial Variation of Lithophysal Cavities at Yucca Mountain,” in *Alaska Rocks 2005 — Rock Mechanics for Energy, Mineral and Infrastructure Development in the Northern Regions (Proceedings, University of Alaska-Anchorage, June 2005)*, Paper No. ARMA/USRMS 05-802. G. Chen et al., Eds. University of Alaska-Fairbanks: ARMA, 2005.

Board, M., and B. Damjanac. “Development of a Methodology for Analysis of Instability in Room and Pillar Mines,” in *2003 Swedish Rock Mechanics Day Conference*, pp. 1-22, O. Stephansson, Ed. Stockholm: SveBeFo, 2003.

Damjanac, B., and E. Detournay. "Effects of Underground Nuclear Tests in French Polynesia on the Stability of Atoll Flanks," in *Proceedings, 9th International Congress on Rock Mechanics (Paris, September 1999)*, Vol. 3, pp. 1767-1774. G. Vouille and P. Bérest, Eds. Rotterdam: Balkema, 2002.

Damjanac, B., T. Siegel and R. Hart. "Seismic Analysis of a Pile-Supported Wharf in Charleston, South Carolina," presented at Down to Earth Technology (International Deep Foundations Congress, Orlando, February 2002).

Damjanac, B., and C. Fairhurst. "Écoulement tri-dimensionnel d'eau sous pression dans les milieux fracturés," in *La Sécurité des grands ouvrages, Hommage à Pierre Londe*, pp. 5-19. Paris: Presses Pontes et Chaussées, 2000.

Fairhurst, C., B. Damjanac and R. Hart. "Numerical Analysis as a Practical Design Tool in Geo Engineering," in *Slope Stability 2000*, Geotechnical Special Publication No. 101 (*Proceedings, Sessions of Geo-Denver 2000 (Denver, August 2000)*), pp. 169-183. D. V. Griffiths, Ed. Reston, Virginia: ASCE, 2000.

Fairhurst, C., and B. Damjanac. "The Excavation Damage Zone — An International Perspective," in *Proceedings, Excavation Disturbed Zone Workshop: Designing the Excavation Disturbed Zone for a Nuclear Repository in Hard Rock (Winnipeg, September 1996)*, pp. 4-14. J. B. Martino and C. D. Martin, Compilers. Toronto: Canadian Nuclear Society, 1996; in *Distinct Element Modeling in Geomechanics*, pp. 1-26. V. M. Sharma et al., Eds. New Delhi: Oxford & IBH Publishing, 1999.

Damjanac, B., E. Detournay and H. Huang. "Effects of Underground Nuclear Tests in French Polynesia on the Stability of Atoll Flanks," in *FLAC and Numerical Modeling in Geomechanics (Proceedings, Minneapolis, September 1999)*, pp. 23-31. C. Detournay and R. Hart, Eds. Rotterdam: Balkema, 1999.

Damjanac, B., C. Fairhurst and T. Brandshaug. "Numerical Simulation of the Effects of Heating on the Permeability of a Jointed Rock Mass with Particular Reference to the Yucca Mountain Nuclear Waste Repository," in *Proceedings, 9th International Congress on Rock Mechanics (Paris, September 1999)*, Vol. 2, pp. 881-885. G. Vouille and P. Bérest, Eds. Rotterdam: Balkema, 1999.

Huang, H., B. Damjanac and E. Detournay. "Normal Wedge Indentation in Rocks with Lateral Confinement," *Rock Mech. & Rock Eng.*, **31**(2), 81-94, 1998.

Huang, H., B. Damjanac and E. Detournay. "Numerical Modeling of Normal Wedge Indentation in Rocks with Lateral Confinement," *Int. J. Rock Mech. & Min. Sci.*, **34**(3-4), p. 613, Paper No. 64. 1997.

Damjanac, B. *A Three-Dimensional Numerical Model of Water Flow in a Fractured Rock Mass*. Ph.D. Thesis, University of Minnesota, February 1996.

Damjanac, B., and E. Detournay. "Numerical Modeling of Normal Wedge Indentation in Rocks," in *Rock Mechanics (Proceedings, 35th U.S. Symposium, University of Nevada, Reno, June 1995)*, pp. 349-354. J.J.K. Daemen and R. A. Schultz, Eds. Rotterdam: Balkema, 1995.

Damjanac, B., and C. Fairhurst. "A Note on Modeling of the Groundwater Flow and Pressure Behavior Observed During Excavation of the SCV Drift in the Stripa Project," in *Proceedings, Fourth NEA/SKB Symposium (Stockholm, October 1992)*, pp. 437-446. Paris: OECD, 1994.

Smiljkovic, Z., and B. Damjanac. "Some Design Aspects of Large Rock Caverns for Storing Petroleum Products," in *Proceedings, International Congress on Progress and Innovation in Tunnelling (Toronto, 1989)*, pp. 419-426. K. Y. Lo et al., Eds. Toronto: Tunnelling Association of Canada/National Research Council of Canada/International Tunnelling Association, 1989.