

Andrieux, P., A. Turichshev, L. Cotesta, J. Fedorowich and R. Brummer. “Explicit Three-Dimensional Analysis of Structurally-Controlled Unraveling in Large Excavations,” in *Continuum and Distinct Element Modeling in Geomechanics — 2011 (Proceedings, 2nd International FLAC/DEM Symposium, Melbourne, February 2011)*, Paper No. 06-04, pp. 341-348. D. Sainsbury et al., Eds. Minneapolis: Itasca International Inc., 2011.

Andrieux, P. P., M. R. Hudyma, C. P. O’Connor, H. Li, L. Cotesta and R. K. Brummer. “Calibration of Large-Scale Three-Dimensional Non-Linear Numerical Models of Underground Mines Using Microseismic Data,” in *Continuum and Distinct Element Numerical Modeling in Geo-Engineering (Proceedings, 1st International FLAC/DEM Symposium, Minneapolis, August 2008)*, Paper No. 07-04. R. Hart et al., Eds. Minneapolis: Itasca Consulting Group, Inc., 2008

Cotesta, L., P. K. Kaiser, M. Cai and A. Vorauer. “Application of Scientific Visualization — Stress Control on Permeability Anisotropy in Moderately Fractured Rock,” in *Rock Mechanics: Meeting Society’s Challenges and Demands (Proceedings, 1st Canada-U.S. Rock Mechanics Symposium, Vancouver, May 2007)*, Vol. 2: *Case Histories*, pp. 1203-1212. E. Eberhardt et al., Eds. London: Taylor & Francis Group, 2007.

Vorauer, A., and L. Cotesta. “Scientific Visualization for Enhanced Interpretation and Communication of Geoscientific Information,” in *Waste Management, Decommissioning and Environmental Restoration for Canada’s Nuclear Activities: Current Practices and Future Needs (Proceedings, Canadian Nuclear Society Conference, Ottawa, May 2005)*. Toronto: Canadian Nuclear Society, 2005.

Henning J. G., L. Cotesta and P. K. Kaiser. “Geomechanics Design of Underground Excavations Utilizing Virtual Reality,” in *Proceedings of the Fourth International Conference on Computer Applications in the Minerals Industries (CAMI, Calgary, September 2003)*.

Kaiser, P. K., J. Henning, L. Cotesta and A. Dasys. “Innovation in Mine Planning and Design Utilizing Collaborative Immersive Virtual Reality (CIVR),” in *Proceedings, 104<sup>th</sup> CIM-AGM, (Vancouver, 2002)*.

Cotesta, L., S. Maloney, P. K. Kaiser and P. Vasak. “Development of a Ground Penetrating Radar for Fracture Detection,” in *Proceedings, 103<sup>rd</sup> CIM-AGM, Quebec City, 2001*.

Cotesta L., P. Vasak, S. Maloney, P. K. Kaiser, H.-M. Braun and C. Ralle. “Radar Assessment of Rock Mass Integrity,” in *Proceedings, Mine Operators Conference, Sudbury, 2001*.

Cotesta, L., W. Lidkea and D. Martin. “Quality Control in Drift Development,” in *Proceedings, 101<sup>st</sup> CIM-AGM, Calgary, 1999*.

#### **Abstracts, Special Sessions & Presentations**

Cotesta, L. “Scientific Visualization for Interpretation and Communication of Sub-Regional Flow in the Canadian Shield,” in *Ontario Power Generation’s 3<sup>rd</sup> Annual Deep Geologic Repository Technology Program (DGRTP) Geoscience Seminar, 2005*.

Cotesta, L., P. Vasak, J. Ayer and R. Calhoun. “From Paper to Prospectivity: Overview and Results of the Discover Abitibi 3-D Mineral Deposit Modeling Project,” in *Proceedings, 107<sup>th</sup> CIM-AGM, (Toronto, 2005)*.

Cotesta, L. “Effect of Stress on Permeability Anisotropy in Moderately Fractured Rock,” in *Proceedings, Ontario Power Generation’s 2<sup>nd</sup> Annual Deep Geologic Repository Technology Program (DGRTP) Geoscience Seminar, 2004*.

Cotesta, L., P. Vasak, P. Thurston and J. Ayer. “From Paper to Prospectivity: Challenges in Data Integration, 3D Geological Modeling and Dissemination of Historical Mineral Deposits,” in *Proceedings, Ontario Exploration and Geoscience Symposium, Toronto, 2004*.

Cotesta, L. “Application of Virtual Reality Technology for Site Characterization: Moderately Fractured Rock Experiment Pilot Project,” in *Proceedings, Ontario Power Generation's 1<sup>st</sup> Annual Deep Geologic Repository Technology Program (DGRTP) Geoscience Seminar, 2003*.

Cotesta, L. “Demonstration of Ground Penetrating Radar Technology for Engineering Blast-Off Show. TVO Kids Crawlspace episode of “Engineers are Everyday Heroes,” Demonstration at INCO Cavern (Science North), National Engineering Week, 2001.

### **Public Virtual Reality Demonstrations**

#### OEGS 2004

- ◆ Millstream Mines Ltd.
  - 3D geological model of historical Potter Mine

#### PDAC 2004

- ◆ Goldcorp
  - 3D geological model of Goldcorp’s world class Red Lake Mine gold deposit
- ◆ Placer Dome
  - 3D geological model of Placer Dome’s Campbell Mine gold deposit

#### PDAC 2003

- ◆ Goldcorp
  - 3D geological model of Goldcorp’s world class Red Lake Mine gold deposit
- ◆ Placer Dome
  - 3D geological model of Musselwhite deposit

#### CIM Vancouver 2001

- ◆ Goldcorp
  - 3D geological model of Goldcorp’s world class Red Lake Mine gold deposit
- ◆ Falconbridge
  - 3D geological model of Kidd Creek deposit as well as a demonstration of advanced targeting process
  - Displayed initial 3D model of Nickel Rim project