1. Record Nr. UNINA9910321054003321

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Titolo	Mining goes digital : proceedings of the 39th International Symposium 'Application of Computers and Operations Research in the Mineral Industry' (APCOM 2019), June 4-6, 2019, Wroclaw, Poland / / editors: Christoph Mueller [and 6 more]
Pubbl/distr/stampa	Taylor & Francis, 2019 Leiden, Netherlands : , : CRC Press, , 2019
ISBN	1-000-43906-2 0-429-32077-9
Descrizione fisica	1 online resource (xx, 759 pages) : digital, PDF file(s)
Collana	Proceedings in Earth and geosciences series ; ; 3
Disciplina	622.0285
Soggetti	Mines and mineral resources - Data processing Mining engineering - Data processing Mining engineering - Technological innovations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"A Balkema book."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	General aspects of digital transformation in mining The so-called "Green Paradox" A.B. Bendiek & M.P. Bendiek Digital technology trends and their implementation in the mining industry L. Barnewold Virtual reality mine: A vision for digitalised mining engineering education R. Suppes, Y. Feldmann, A. Abdelrazeq & L. Daling Investing in engineering, research and education in Africa to derive a roadmap for ensuring local digital mining success W. Assibey-Bonsu The application of correlation models for the analysis of market risk factors in KGHM capital group . Bielak, P. Mista, A. Michalak & A. Wyomanska Improvement of investment processes in mining company by implementation of project management system M. Wach & I. Chomiak-Orsa Resource estimation and geostatistics An approach for drilling pattern simulation G. Usero, S. Misk & A. Saldanha Application of Locally Varying Anisotropy (LVA) kriging at the Grasberg porphyry Cu-Au-Ag deposit, Papua, Indonesia A. Issel, A. Schwarz, K. Moss & R. Rossi Multivariate geostatistical simulation using principal component analysis M. Bolgkoranou & J.M. Ortiz Application of ASTER multispectral

data and hyperspectral spectroscopy for phosphate exploration N. Mezned, A. Fatnassi & S. Abdeljaouad Multivariate Gaussian process for distinguishing geological units using measure while drilling data K.L. Silversides & A. Melkumyan Machine learning classification of geochemical and geophysical data L. Huang, M. Balamurali & K.L. Silversides Covariance table and PPMT: Spatial continuity mapping of multiple variables J. Kloeckner, C.Z. da Silva & J.F.C.L. Costa Optimal drill hole spacing for resource classification M. Nowak & O. Leuangthong Geostatistical simulation with heterotopic soft data without the LMC C.P. Araujo, M.A.A. Bassani & J.F.C.L. Costa Application of localized multivariate uniform conditioning and conditional simulation for a stockwork niobium deposit L. Bertossi, D. Raposo, J. Watanabe, S. Silva & G. Usero MILP framework for open pit and underground mining transitions evaluation B.O. Afum & E. Ben-Awuah Multi-collocated cokriging: An application to grade estimation in the mining industry N. Madani Recursive convolutional neural networks in a multiple-point statistics framework S. Avalos & J.M. Ortiz Grade estimation in a tabular deposit using unstructured grids M.A.A. Bassani, C.P. Araujo & J.F.C.L. Costa Influence of drilling spacing on the mineral resources uncertainty C.J.E. Silva, M.A.A. Bassani & J.F.C.L. Costa Evolving estimation techniques for an evolving world class stratiform copper deposit at Kamoa-Kakula, Democratic Republic of the Congo G. Gilchrist Critical review of mineral resource classification techniques in the gold mining industry S.K.A. Owusu & K. Dagdelen Transforming exploration data through machine learning I.W.S. Whitehouse & W. Slabik Rock mass characterization using MWD data and photogrammetry S. Manzoor, S. Liaghat, A. Gustafson, D. Johansson & H. Schunnesson Ore grade prediction using informative features of MWD data S. Liaghat, A. Gustafson, D. Johansson & H. Schunnesson Recoverable resource estimation mixing different quality of data C.R.O. Mariz, A. Prior & J. Benndorf Declustering weights as a measure of average sample spacing, applications in mineral resource classification D.E. Hulse & R.C. Bryan Mine planning in digital transformation Multi stage dumping sequence--a new approach for waste disposal B.T. Kuckartz & R.L. Peroni Parametric analysis of the optimal depth of an open-pit gold mine R. Motta, C. Porto, D. Machado & O.C. Souto A procedure to generate optimized ramp designs using mathematical programming N. Espejo, P. Nancel-Penard & N. Morales Break line and shotpile surfaces modeling in design of large-scale blasts S.V. Lukichev, O.V. Nagovitsyn & A.S. Shishkin Incorporation of mineralisation risk into underground mine planning R.C. Rosado, J.F.C. L. Costa & A.A. Saldanha Economic optimization of rib pillars placement in underground mines A.B. Andrade, A.R.C. Faria & P.C.B. Rampazzo Performance assessment of antithetic random fields in a stochastic mine planning model G. Nelis, N. Morales & J.M. Ortiz A data science model on production level pillar stability at El Teniente mine R.J. Quevedo, R.F. Quezada, R.A. Zepeda, S.A. Balboa, J.P. Vargas & S.A. Perez Incorporating grade uncertainty into sublevel stope sequencing Y. A. Sari & M. Kumral A spatial clustering algorithm for orebody classification and boundary setting S. Li, Y.A. Sari & M. Kumral Underground mine planning optimization process to improve values and reduce risks H.H. Wang Application of a digital model of deposit in Polish hard coal mines on the example of Polish Mining Group Ltd. V. Sokoa-Szewioa & M. Poniewiera Scheduling and dispatch Improvements in plan-driven truck dispatching systems for surface mining M. Samavati, A.W. Palmer, A.J. Hill & K.M. Seiler Short-term production scheduling of multiple mines using genetic algorithms P. Pathak & B. Samanta A two-stage solution approach for a shift

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Sommario/riassunto

The conferences on 'Applications for Computers and Operations Research in the Minerals Industry' (APCOM) initially focused on the optimization of geostatistics and resource estimation. Several standard methods used in these fields were presented in the early days of APCOM. While geostatistics remains an important part, information technology has emerged, and nowadays APCOM not only focuses on geostatistics and resource estimation, but has broadened its horizon to Information and Communication Technology (ICT) in the mineral industry. Mining Goes Digital is a collection of 90 high quality, peer reviewed papers covering recent ICT-related developments in: - Geostatistics and Resource Estimation- Mine Planning- Scheduling and Dispatch - Mine Safety and Mine Operation- Internet of Things, Robotics- Emerging Technologies - Synergies from other industries - General aspects of Digital Transformation in Mining Mining Goes Digital will be of interest to professionals and academics involved or interested in the above-mentioned areas.