

List of PRIF Mining Consortium Publications (March 2024)

N	Publication	Comments (e.g. published/ accepted/submitted)
Program A		
1	Adeli, A., Emery, X. and Dowd, P.A. (2018) Geological modelling and validation of geological interpretations via simulation and classification of quantitative covariates. Minerals, 8 (7), doi:10.3390/min8010007	Published, 2018 full text available on Box
2	Sepulveda, E., Dowd, P.A. and Xu, C. (2018) Fuzzy clustering with spatial correction and its application to geometallurgical domaining. Mathematical Geosciences, 50 (8), 8.55 368.23 55.224 reW* nu	

	Lightweight {3D-CNN} With Transfer Learning, IEEE Transactions on Geoscience and Remote Sensing 57; 10.1109/TGRS.2019.2902568	full text available on Box
12	Liang Liu, Hao Lu, Haipeng Xiong, Ke Xian, Zhiguo Cao and Chunhua Shen (2019), Counting Objects by Blockwise Classification, IEEE Transactions on Circuits and Systems for Video Technology. 10.1109/TCSVT.2019.2942970	Published, 2019 full text available on Box
13	Zifeng Wu, Chunhua Shen and Anton van den Hengel (2019), Wider or Deeper: Revisiting the {ResNet} Model for Visual Recognition, Pattern Recognition 90, 119-133.	Published, 2019
14	B. Doerr, C. Doerr, A. Neumann, F. Neumann, A. M. Sutton (2020), Optimization of chance-	

In Proceedings of the 24th European Conference on Artificial Intelligence, ECAI 2020 Digital Conference, pp. 307-314. 2020. IOS Press.

[full text available on Box](#)

24 Yue Xie, Aneta Neumann, Frank Neumann: Specific single- and multi-

35	Wang, H., Xu, C. and Dowd, P.A. (2021) Modelling the pyrite oxidation level in a refractory gold-bearing stockpile to assess its potential for gold recovery by direct cyanide leaching. <i>Minerals Engineering</i> , 171, 107089	Published, 2021
36	Xu, C., Dowd, P.A., Nguyen, N. and Wang, W. (2021) Non-parametric three-dimensional discrete fracture modelling from fracture mapping data. <i>Boletín Geológico y Minero</i> , 131 (3): 401-422. ISSN: 0366 -0176.	Published, 2021
37	Sepulveda, E., Dowd, P.A. and Xu, C. (2021) A novel index for quantifying small-scale resource heterogeneity. <i>Mathematical Geosciences</i> , 54, 243-282.	Published, 2021 full text available on Box
38	Pardo-Igúzquiza, E. and Dowd, P.A. (2021) Automatic mapping and spatial analysis of high spatial resolution closed terrain depressions and mounds on Martian landscapes. <i>Icarus</i> , 369. Article 114632.	Published, 2021 full text available on Box
39	Wang, H., Dowd, P.A. and Xu, C. (2021) Modelling pyrite oxidation in a refractory gold ore stockpile to estimate the gold recovery via direct cyanide leaching A case study. <i>Minerals Engineering</i> , 173, 107177	Published, 2021 full text available on Box
40	Yusha Li, Exequiel Sepulveda, Chaoshui Xu, Peter Dowd, A rapid updating method to predict grade heterogeneity at smaller scales. <i>Mathematical Geosciences</i> , 53, pages1237 1260.	Published, 2021 full text available on Box
41	Shi Zhao, Tien-Fu Lu, Larissa Statsenko, Ben Koch, Chris Garcia: A Framework for Fast ROM Stockpile Modelling to Improve Blending Efficiency, <i>Journal of Engineering, Design and Technology (Q2)</i> Volume 20 Issue 2, accepted April 2021, published July 2021. https://www.emerald.com/insight/1726-0531.htm	Published, 2021 full text available on Box
42	Hirad Assimi, Koch, B., Garcia, C., Wagner, M., & Neumann, F. (2020): Modelling and Optimization of Run-of-Mine Stockpile Recovery, In	

47	E. Pardo-Igúzquiza, P.A. Dowd, 2022: The roughness of Martian topography: A metre-scale fractal analysis of six selected areas. Published by Elsevier Inc., Available online https://doi.org/10.1016/j.icarus.2022.115109	Published, 2022 full text available on Box
48	Hang Wang, Chaoshui Xu, Peter A. Dowd, Zhihe Wang, Leon Faulkner, 2022: Modelling in-situ recovery (ISR) of copper at the Kapunda mine, Australia. Minerals Engineering, 186, 107752; Published by Elsevier Inc., Available online https://doi.org/10.1016/j.mineng.2022.107752	Published, 2022 full text available on Box
49	Eulogio Pardo-Igúzquiza, Juan J. Durán-Valsero, Peter A. Dowd, Juan A. Luque-Espinar, Javier Heredia, Pedro A. Robledo-Ardila, 2022: Geodiversity of closed depressions in a high relief karst: Geoeducation asset and geotourism resource in the "Sierra de las Nieves" National Park (Málaga Province, Southern Spain). Published by Elsevier Inc., Available online https://doi.org/10.1016/j.ijgeop.2022.04.001	Published, 2022 full text available on Box

58 Yue Xie, Aneta Neumann, Frank Neumann, Andrew M. Sutton: Runtime
Analysis of RLS and the (1+1) EA for the Chance-constrained Knapsack
Problem with Correlated Uniform Weights.72 Tm0 g0 G{c}4(onst)-2(ra)7(i

68	Peukert, D., Xu, C. and Dowd, P.A. (2022) A review of sensor-based sorting in mineral processing: the potential benefits of sensor fusion. Minerals: Mineral Processing and Extractive Metallurgy, 12(11), 1364; https://doi.org/10.3390/min12111364	Published, 2022 full text available on Box
68	Abulhair, S., Dowd, P.A. and Xu, C. (2023) Geostatistics in the presence of multivariate complexities: comparison of multi-Gaussian transforms. Mathematical Geosciences. DOI: 10.1007/s11004	

78 Kwaku Boateng Owusu, RK Asamoah, J Karageorgos, C Greet, M Zanin, W Skinner, Predicting Mill Feed Grind Characteristics through Acoustic Measurements, Minerals Engineering, Volume 171, 107099, pp. 1-9.
<https://find.library.unisa.edu.au/primo->

- 89 Kwaku Boateng Owusu, Richmond K. Asamoah, John Karageorgos, Christopher Greet, Max Zanin and William Skinner, Non-contact acoustic and vibration sensors in autogenous and semi-autogenous (AG/SAG) mills: A Brief review
IMPC 2020: XXX International Mineral Processing Congress
Proceedings, Cape Town, South Africa, pp. 3292-3304, 18-22 October 2020.
- Published, 2020
[full text available on Box](#)

99	Courtney-Davies, L., Ciobanu, C.L., Gilbert, S., Tapster, S., Richardson, M., Cook, N.J., Verdugo-Ihl, M.R., Wade, B.P., Ehrig, K., Condon, D.J. Development and Application of Synthetic Hematite Reference Material for U-Pb Geochronology. <i>Microscopy and Microanalysis</i> 2021. <i>Microscopy and Microanalysis</i> 27(S1), 2742-2745.	Published, 2021
100	Cook, N.J., Ciobanu, C.L., Slattery, A., Wade, B.P., Ehrig, K. The mixed-layer structures of ikonolite, laitakarite, joséite-B and joséite-A. <i>Minerals</i> 11, 920.	Published, 2021 full text available on Box
101	Ciobanu, C.L., Slattery, A.D., Cook, N.J., Wade, B.P., Ehrig, K. Bi ₈ Te ₃ , the 11-Atom Layer Member of the Tetradymite Homologous Series. <i>Minerals</i> 11, 980.	Published, 2021
102	Voudouris, P., Repstock, A., Spry, P.G., Frenzel, F., Mavrogonatos, C., Keith, M., Tarantola, A., Melfos, V., Tombros, S., Zhai, D., Cook, N.J., Ciobanu, C.L., Schaarschmidt, A., Rieck, B., Kolitsch, U., Falkenberg, J.J. Physicochemical constraints on indium-, tin-, germanium-, gallium-, gold-, and tellurium-bearing mineralizations in the Pefka and St Philippos polymetallic vein- and breccia-type deposits, Greece, <i>Ore Geology Reviews</i> 140, 104348.	Published, 2022 full text available on Box
103	Liam Courtney-Davies, Cristiana L. Ciobanu ¹ , Nigel J. Cook, Max R. Verdugo-Ihl, Ashley Slattery, Sarah E. Gilbert, Kathy Ehrig: Metallic-Pb nanospheres in zircon from the Challenger Au deposit, South Australia: probing metamorphic and ore formation histories, <i>Cambridge University Press, Mineralogical Magazine</i> (2021), 85, 868 ±	

111	Verdugo-Ihl, M.R., Ciobanu, C.L., Courtney-Davies, L., Cook, N.J., Slattery, A., Ehrig, E., Tornos, F., Hanchar, J.M. U-Pb geochronology and mineralogy of hematite from Mantoverde and Carmen de Cobre, Northern Chile: constraints on Andean IOCG mineralization. <i>Economic Geology</i> , 117, 943–960.	Published, 2022 Abstract available on Box
112	Ciobanu, C.L., Verdugo-Ihl, M.R., Cook, N.J., Ehrig, K., Slattery, A., Courtney-Davies, L., 2022. Ferro-tschermakite with polysomatic chain-width disorder identified in silician magnetite from Wirrda Well, South Australia: a HAADF STEM study. <i>American Mineralogist</i> , 107, 765–777.	Published, 2022 Abstract available on Box
113	Zhu, Q.Q., Cook, N.J., Xie, G.Q., Ciobanu, C.L., Ji, Y.H. Determination of skarn garnet compositions using Raman spectroscopy. 2023 <i>Journal of Raman Spectroscopy</i> 54, 217–224.	Published, 2023 full text available on Box
114	Zhu, Q.Q., Cook, N.J., Xie, G.Q., Ciobanu, C.L., Gilbert, S.E., Wade, B.P., Xu, J. Textural and geochemical analysis of celestine and sulfides constrain Sr-(Pb-Zn) mineralization in the Shizilishan deposit, eastern China. <i>Ore Geology Reviews</i> , 144, 104814.	Published, 2022
115	Keyser, W., Ciobanu, C.L., Ehrig, K., Dmitrijeva, M., Wade, B.P., Courtney-Davies, L., Verdugo-Ihl, M.R., Cook, N.J. Skarn-style alteration in Proterozoic metasedimentary protoliths hosting IOCG mineralization: the Island Dam Prospect, South Australia. <i>Mineralium Deposita</i> 57, 1227–1250; https://doi.org/10.1007/s00126-022-01096-1 .	Published, 2022 Abstract available on Box
116	Dmitrijeva, M., Ciobanu, C.L., Ehrig, K., Cook, N.J., Verdugo-Ihl, M.R., Metcalfe, A.V., Kamenetsky, V.S., McPhie, J. Geochemical data analysis of iron-oxide copper gold mineralization, Wirrda Well prospect, South Australia. <i>Economic Geology</i> 117, 853–874.	

133 Difan Tang, Lei Chen, Lin Yang, and Eric Hu, Ultrafine-particle online detection and size-distribution approximation at hydrocyclone overflow,