

**PREMIER RESEARCH AND INDUSTRY FUND  
RESEARCH CONSORTIA PROGRAM  
'Unlocking Complex Resources through Lean Processing'**

## PRIF Consortium Publications

The PRIF Consortium currently has 79 papers published and 19 accepted for publication.

- **Prof Nigel Cook – speaker presentation (YouTube):**

Professor Nigel Cook was a presenter at Amira's Global Remote Operations Automation and Robotics Day (Global ROAR), which was held on 10<sup>th</sup> October 2020. Nigel discussed 'Developing Tools to Integrate the Entire Mining Value Chain by Using Machine Learning, Sensors and Data Analytics'. The [presentation is now available on YouTube](https://www.youtube.com/watch?v=2H-ijq4ve4):  
<https://www.youtube.com/watch?v=2H-ijq4ve4>

- **Note, the PRIF Annual Assembly held on 1<sup>st</sup> October 2021 can be viewed on YouTube:**

<https://youtube.com/playlist?list=PLIqDYZIZNDZK4Q-IUWORz8yZnfZuDifDy>

### Consortium Publications

*updated February 2022*

**Legend:**      **Published in black font colour**

**Accepted and addressing reviewers comments in purple font colour**

N	Publication	Comments (e.g. published/ accepted/submitted)
<b>Program A</b>		
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  <a href="#">full text available on Box</a>
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), 895-928.	Published, 2018  <a href="#">full text available on Box</a>
3	Sepulveda, E., Dowd, P.A. and Xu, C. (2018) The optimisation of block caving production scheduling with geometallurgical uncertainty – a multi-objective approach. Mining Technology, 127 (3), 131-145.	Published, 2018  <a href="#">full text available on Box</a>
4	Wang, H., Pardo-Igúzquiza, E., Dowd, P.A. and Yang, Y. (2018) Comparison of statistical methods for testing the hypothesis of constant global mean in spatial statistics. Spatial Statistics, 23, 143-159.	Published, 2018  <a href="#">full text available on Box</a>
5	Hou, J., Xu, C., Dowd, P.A. and Li, G. (2019) Integrated optimisation of stope boundary and access layout for underground mining operations. Mining Technology, 128, (4), 193- 205.	Published, 2019

		full text available on Box
6	<p>Qiuzhu Pan (2019), Muck-pile fragmentation measurement techniques - from controlled samples to field trials, MSc thesis, the University of Adelaide</p> <p>Awarded the PRIF RCP Women in Mining Technology Scholarship</p>	Published, 2019
7	F. Neumann, A. Sutton (2019): Runtime analysis of evolutionary algorithms for the chance-constrained knapsack problem, Proceedings of the Foundations of Genetic Algorithms XV, FOGA 2019, ACM Press, 147-153. (CORE A*)	Published, 2019  full text available on Box
8	J. Bossek, P. Kerschke, A. Neumann, M. Wagner, F. Neumann, H. Trautmann (2019): Evolving diverse TSP instances by means of novel and creative mutation operators, Foundations of Genetic Algorithms XV, FOGA 2019, ACM Press, 58-71. (CORE A*)	Published, 2019  full text available on Box
9	Yue Xie, Oscar Harper, Hiran Assimi, Aneta Neumann, and Frank Neumann (2019): Evolutionary algorithms for the chance-constrained knapsack problem, Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2019, ACM, New York, NY, USA, 338-346. DOI: <a href="https://doi.org/10.1145/3321707.3321869">https://doi.org/10.1145/3321707.3321869</a> . (CORE A)	Published, 2019  full text available on Box
10	Lei Zhang, Wei Wei, Qiang Shen, Chunhua Shen and Anton van den Hengel (2019), Accurate Imagery Recovery Using a Multi-Observation Patch Model, Information Science 501, 724-741.	Published, 2019  full text available on Box
11	Haokui Zhang, Ying Li, Yenan Jiang, Peng Wang, Qiang Shen and Chunhua Shen (2019), Hyperspectral Classification Based on Lightweight {3D-CNN} With Transfer Learning, IEEE Transactions on Geoscience and Remote Sensing 57; 10.1109/TGRS.2019.2902568	Published, 2019  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-constrained submodular functions, Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence, AAAI 2020, AAAI Press 2020, ISBN 978-1-57735-823-7, (CORE A*), 1460-1467.	Published, 2020  full text available on Box
15	Wang, Z., Xu, C., Dowd, P.A., Xiong, F. and Wang, H. (2020), A Nonlinear Version of the Reynolds Equation for Flow in Rock Fractures With Complex Void Geometries. <i>Water Resources Research</i> , 56 (2), e2019WR026149. <a href="https://doi.org/10.1029/2019WR026149">https://doi.org/10.1029/2019WR026149</a> .	Published, 2020  full text available on Box

16	Jeuken, R., Xu, C. and Dowd, P.A. (2020) Improving Coal Quality Estimations with Geostatistics and Geophysical Logs. <i>Natural Resources Research</i> , 29, 1-18.	Published, 2020 <a href="#">full text available on Box</a>
17	Pardo-Igúzquiza, E. and Dowd, P.A. (2020) Identification, delineation and morphometric analysis of closed terrain depressions on Mars. <i>Icarus</i> , 348. <a href="https://doi.org/10.1016/j.icarus.2020.113869">https://doi.org/10.1016/j.icarus.2020.113869</a>	Published, 2020 <a href="#">full text available on Box</a>
18	Pardo-Igúzquiza, E. and Dowd, P.A. (2020) Identification and delineation of the Earth's large-scale closed terrain depressions and their fractal size-distribution. Accepted for publication in <i>Mathematical Geosciences</i> . <a href="https://doi.org/10.1007/s11004-020-09888-9">https://doi.org/10.1007/s11004-020-09888-9</a>	Published, 2020 <a href="#">full text available on Box</a>
19	Li, Y., Sepulveda, E., Xu, C., Dowd, P.A. (2020) A Rapid updating method to predict grade heterogeneity at smaller scales. <i>Mathematical Geosciences</i> . <a href="https://doi.org/10.1007/s11004-020-09901-1">https://doi.org/10.1007/s11004-020-09901-1</a>	Published, 2020 <a href="#">full text available on Box</a>
20	Jorroto-Zaguirre, S., Dowd, P.A., Pardo-Igúzquiza, E., Pulido-Bosch, A. and Sanchez-Martos, F. (2020) Stochastic simulation of the heterogeneity of deltaic hydrofacies accounting for the uncertainty of facies proportions. <i>Frontiers in Earth Sciences special edition on Stochastic Modelling in Hydrogeology</i> . DOI: 10.3389/feart.2020.563122.	Published, 2020 <a href="#">full text available on Box</a>
21	Hirad Assimi, Ben Koch, Christopher Garcia, Markus Wagner, Frank Neumann, Automatic Search Strategy for ROM Stockpile Recovery Optimisation Preconcentration Digital Conference 2020 (10-11, 17-18 November), Australia <i>Paper appeared in proceedings of Preconcentration Digital Conference</i>	Published, 2020 <a href="#">full text available on Box</a>
22	Hirad Assimi, Ben Koch, Christopher Garcia, Markus Wagner, Frank Neumann, Automatic Search Strategy for ROM Stockpile Recovery Optimisation Preconcentration Digital Conference 2020 (10-11, 17-18 November), Australia <i>Paper appeared in proceedings of Preconcentration Digital Conference</i>	Published, 2020 <a href="#">full text available on Box</a>
23	Hirad Assimi, Oscar Harper, Yue Xie, Aneta Neumann, and Frank Neumann: Evolutionary Bi-objective Optimization for the Dynamic Chance-Constrained Knapsack Problem Based on Tail Bound Objectives, In <i>Proceedings of the 24th European Conference on Artificial Intelligence, ECAI 2020 Digital Conference</i> , pp. 307-314. 2020. IOS Press.	Published, 2020 <a href="#">full text available on Box</a>
24	Yue Xie, Aneta Neumann, Frank Neumann: Specific single- and multi-objective evolutionary algorithms for the chance-constrained knapsack problem, <i>Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2020 Electronic-only Conference ACM 2020</i> , ISBN 978-1-4503-7128-5, (CORE A), 271-279. GECCO '20, July 8–12, 2020	Published, 2020 <a href="#">full text available on Box</a>
25	Yue Xie, Aneta Neumann, Frank Neumann: Specific single- and multi-objective evolutionary algorithms for the chance-constrained knapsack problem, <i>Proceedings of the Genetic and Evolutionary Computation Conference, GECCO 2020 Electronic-only Conference ACM 2020</i> , ISBN 978-1-4503-7128-5, (CORE A), 271-279. GECCO '20, July 8–12, 2020	Published, 2020 <a href="#">full text available on Box</a>

26	Aneta Neumann and Frank Neumann: Optimising Monotone Chance-Constrained Submodular Functions Using Evolutionary Multi-Objective Algorithms, Proceedings of the 16 <sup>th</sup> International Conference on Parallel Problem Solving from Nature, PPSN XVI 2020 (hybrid), (CORE A), Leiden, South Holland, Netherlands. HYBRID 5 - 9 Sep 2020	Published, 2020  the full text is available on Box
27	Hu Wang, Qi Wu, Chunhua Shen: Soft Expert Reward Learning for Vision-and-Language Navigation (accepted by ECCV 2020). The article address is <a href="https://www.ecva.net/papers/eccv_2020/papers_ECCV/papers/123540120.pdf">https://www.ecva.net/papers/eccv_2020/papers_ECCV/papers/123540120.pdf</a> an introductory video here: <a href="https://www.youtube.com/watch?v=mTMHju4F2UU">https://www.youtube.com/watch?v=mTMHju4F2UU</a>	Published, 2020  full text available on Box
28	Hu Wang, Guansong Pang, Chunhua Shen, Congbo Ma: Unsupervised Representation Learning by Predicting Random Distances (accepted by IJCAI 2020). The article address is <a href="https://www.ijcai.org/Proceedings/2020/0408.pdf">https://www.ijcai.org/Proceedings/2020/0408.pdf</a> . There is a long version with appendix is at: <a href="https://arxiv.org/abs/1912.12186">https://arxiv.org/abs/1912.12186</a>	Published, 2020  full text available on Box
29	Pardo-Igúzquiza, E. and Dowd, P.A. Fractal analysis of the Martian landscape: a study of kilometre-scale topographic roughness. <i>Icarus</i> , 372, Article 114727.	Published, 2021
30	Pardo-Igúzquiza, E. and Dowd, P.A. (2021) The mapping of closed depressions and its contribution to the geodiversity inventory. <i>International Journal of Geoheritage and Parks</i> , 9 (4), 480-495.	Published, 2021
31	Adeli, A., Dowd, P.A., Emery, X. and Xu, C. (2021) Using cokriging to predict metal recovery accounting for non-additivity and preferential sampling designs. <i>Minerals Engineering</i> , 170, 106923.	Published, 2021  full text available on Box
32	Pardo-Igúzquiza, E. and Dowd, P.A. (2021) Identification and delineation of the Earth's large-scale closed terrain depressions and their fractal size-distribution. <i>Mathematical Geosciences</i> , 53, 1027-1045	Published, 2021
33	Li, Y., Sepulveda, E., Xu, C., Dowd, P.A. (2021) A Rapid updating method to predict grade heterogeneity at smaller scales. <i>Mathematical Geosciences</i> , 53 (6), 1237-1260.	Published, 2021
34	Xu, C., Dong, S, Wang, H., Wang, Z., Xiong, F., Jiang, Q., Zeng, L., Faulkner, L., Tian, Z. and Dowd, P.A. (2021) Modelling of coupled hydro-thermo-chemical fluid flow through rock fracture networks and its applications. <i>Geosciences, Special Issue on Quantitative Fractured Rock Hydrology</i> , 11, 153. <a href="https://doi.org/10.3390/geosciences11040153">https://doi.org/10.3390/geosciences11040153</a> .	Published, 2021
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

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
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
40	Yusha Li, Exequiel Sepulveda, Chaoshui Xu, Peter Dowd, A rapid updating method to predict grade heterogeneity at smaller scales. <i>Mathematical Geosciences</i> , <a href="https://doi.org/10.1007/s11004-020-09901-1">https://doi.org/10.1007/s11004-020-09901-1</a>	Published, 2021 <a href="#">full text available on Box</a>
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</i> <a href="https://www.emerald.com/insight/1726-0531.htm">https://www.emerald.com/insight/1726-0531.htm</a>	Published, 2021 <a href="#">full text available on Box</a>
42	Hirad Assimi, Koch, B., Garcia, C., Wagner, M., & Neumann, F. (2020): Modelling and Optimization of Run-of-Mine Stockpile Recovery, In <i>Proceedings of the 36th Annual ACM Symposium on Applied Computing</i> , pp. 450-458. 2021.	Published, 2021 <a href="#">full text available on Box</a>
43	Aneta Neumann, William Reid, Simon Ratcliffe, Frank Neumann: Advanced Ore Mine Optimisation under Uncertainty Using Evolution The Genetic and Evolutionary Computation Conference (GECCO) July 10-14, 2021; Online-only Conference, Lille, France	Published, 2021 <a href="#">full text available on Box</a>
44	Aneta Neumann, William Reid, Simon Ratcliffe, Frank Neumann: Advanced Ore Mine Optimisation under Uncertainty Using Evolution IAM'21 Workshop at GECCO'21 as a full publication (The Genetic and Evolutionary Computation Conference (GECCO)) July 10-14, 2021; Online-only Conference, Lille, France	Published, 2021 <a href="#">full text available on Box</a>
45	A. Neumann, J. Bossek, F. Neumann (2021): Diversifying Greedy Sampling and Evolutionary Diversity Optimisation for Constrained Monotone Submodular Functions. In: <i>Genetic and Evolutionary Computation Conference, GECCO 2021</i> , ACM Press, (CORE A) July 10-14, 2021; Online-only Conference, Lille, France	2021 Paper Accepted as full text to the peer-reviewed international conference <a href="#">full text available on Box</a>
46	Yue Xie, Aneta Neumann, Frank Neumann: Heuristic Strategies for Solving Complex Interacting Stockpile Blending Problem with Chance Constraints The Genetic and Evolutionary Computation Conference, GECCO 2021, ACM Press, (CORE A) July 10-14, 2021; Online-only Conference, Lille, France	2021 Paper accepted as full text to the peer-reviewed international conference <a href="#">full text available on Box</a>
47	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 The Genetic and Evolutionary Computation Conference, GECCO 2021, ACM Press, (CORE A) July 10-14, 2021; Online-only Conference, Lille, France	2021 Paper accepted as full text to the peer-reviewed international conference <a href="#">full text available on Box</a>



48	Yue Xie, Aneta Neumann, Frank Neumann: Heuristic Strategies for Solving Complex Interacting Large-Scale Stockpile Blending Problems In: IEEE Congress on Evolutionary Computation, CEC 2021, IEEE Press, (CORE B) 28.06-1.07.2021 Kraków, Poland (VIRTUAL)	2021 Paper accepted as full text to the peer-reviewed international conference  <a href="#">full text available on Box</a>
49	Hirad Assimi, Koch, B., Garcia, C., Wagner, M., & Neumann, F. (2021): Run-of-Mine Stockyard Recovery Scheduling and Optimisation for Multiple Reclaimers. To appear in the Proceedings of the 37th ACM/SIGAPP Symposium on Applied Computing, {SAC} 2022. The 37th ACM/SIGAPP Symposium On Applied Computing (SAC 22) <a href="#">April 25--29, 2022, Virtual Event</a>	2022 Paper accepted
<b>Program B</b>		
50	Kwaku Boateng Owusu, RK Asamoah, J Karageorgos, C Greet, M Zanin, W Skinner, Acoustic Monitoring of Mill Pulp Densities. 6th UMaT Biennial International Mining and Mineral Conference, Ghana, via Zoom, 4 – 7 August 2020.	Published, 2020  <a href="#">full text available on Box</a>
51	Kwaku Boateng Owusu, RK Asamoah, J Karageorgos, C Greet, M Zanin, W Skinner, 2020. Variations in Mill Feed Characteristics and Acoustic Emissions. 6th UMaT Biennial International Mining and Mineral Conference, Ghana, via Zoom, 4 – 7 August 2020.	Published, 2020  <a href="#">full text available on Box</a>
52	Bismark Amankwaa-Kyeremeh, RK Asamoah, C Greet, M Zanin, W Skinner, 2020. Selecting Key Predictor Parameters for Regression Analysis using Modified Neighbourhood Component Analysis (NCA) Algorithm. 6th UMaT Biennial International Mining and Mineral Conference, Ghana, via Zoom, 4 – 7 August 2020.	Published, 2020  <a href="#">full text available on Box</a>
53	Bismark Amankwaa-Kyeremeh, RK Asamoah, C Greet, M Zanin, W Skinner, 2020. Predictability of rougher flotation copper recovery using Gaussian Process Regression Algorithm. 6th UMaT Biennial International Mining and Mineral Conference, Ghana, via Zoom, 4 – 7 August 2020	Published, 2020  <a href="#">full text available on Box</a>
54	Courtney-Davies, L., Ciobanu, C.L., Tapster, S.R., Cook, N.J., Ehrig, K., Crowley, J.L., Verdugo-Ihl, M.R., Wade, B.P., Condon, D.J., 2020. Opening the Magmatic-Hydrothermal Window: High-Precision U-Pb Geochronology of the Mesoproterozoic Olympic Dam Cu-U-Au-Ag Deposit, South Australia. Economic Geology 115, 1855-1870.	Published, 2020
55	Piotr Pawliszak, Bronwyn Bradshaw-Hajek, Chris Greet, Bill Skinner, David Beattie, Marta Krasowska: Interfacial Tension Sensor for Low Dosage Surfactant Detection, Colloids and Interfaces, 2021, vol. 5, p9	Published, 2021  <a href="#">full text available on Box</a>
56	Piotr Pawliszak, Vamseekrishna Ulaganathan, Bronwyn H. Bradshaw-Hajek, Reinhard Miller, David A. Beattie, Marta Krasowska: Can small air bubbles probe very low frother concentration faster? Soft Matter, 2021 (this journal © The Royal Society of Chemistry)	Published, 2021  <a href="#">full text available on Box</a>

57	Kwaku Boateng Owusu, RK Asamoah, J Karageorgos, C Greet, M Zanin, W Skinner, Predicting Mill Feed Grind Characteristics through Acoustic Measurements, Minerals Engineering Journals	Published, 2021 <a href="#">full text available on Box</a>
58	Bismark Amankwaa-Kyeremeh, Richmond K. Asamoah, Christopher Greet, Max Zanin and William Skinner, Ascertaining the individual contributions of process variables on copper recovery and grade XXX International Mineral Processing Congress 2020 (IMPC 2020), Cape Town, postponed to 18 to 22 April 2021 <i>Conference cancelled.</i>	Published, 2021 online
59	Bismark Amankwaa-Kyeremeh, Christopher Greet, William Skinner, Richmond K. Asamoah, A Brief Review of Pulp Chemistry Parameters in Relation to Flotation Feed Variation, IMPC 2020, XXX International Mineral Processing Congress 2020 (IMPC 2020), Cape Town, postponed to 18 to 22 April 2021	Published, 2021 online
60	Kwaku Boateng Owusu, RK Asamoah, J Karageorgos, C Greet, M Zanin, W Skinner, AG/SAG mill acoustic emissions characterisation under different operating conditions, Minerals Engineering Journal	Published, 2021
61	Owusu, K. B., Zanin, M., Skinner, W. and Asamoah, R. K., 'Variation of mill feed characteristics and acoustic emissions', In Proceedings 6th UMaT Biennial International Mining and Mineral Conference, Tarkwa, pp. 384-390, 4-7 th August 2020	Published, 2021  <i>published in conference proceedings 2020</i>
62	Owusu, K. B., Skinner, W. and Asamoah, R. K., 2021, 'Differentiation of AG/SAG mill feed particles size variations in batch milling process using acoustic emission', International Future Mining Conference 2021, 6-8 December, Australia, Presented online	Published, 2021  <i>published in conference proceedings 2021</i>
63	Owusu, K. B., Skinner, W. and Asamoah, R. K., 2021, 'Acoustic sensor frequencies and mill feed properties – A brief review', 2021, Chemeca 2021, 27-28 September, Australia, Presented online	Published, 2021  <i>published in conference proceedings 2021</i>
64	Owusu, K. B., Skinner, W. and Asamoah, R. K., 2021, 'Influence of lifter height on mill acoustic and performance', International Future Mining Conference 2021, 6-8 December, Australia, Presented online	Published, 2021  <i>published in conference proceedings 2021</i>
65	Owusu, K. B., Greet, C., Skinner, W. and Asamoah, R. K., 2021, 'Purpose-built laboratory AG/SAG mill development', Procemin GeomMet 2021, 6-8 December, Chile - Online	Published, 2021  <i>published in conference proceedings 2021</i>
66	Owusu, K. B., Greet, C., Skinner, W. and Asamoah, R. K., 2021, 'SAG Mill Acoustic Monitoring of Process Variables: Mill Speed, Pulp Solid Loading, and Rock Filling', Procemin GeomMet 2021, 6-8 December, Chile - Online	Published, 2021  <i>published in conference proceedings 2021</i>

67	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 review XXX International Mineral Processing Congress 2020 (IMPC 2020), Cape Town. postponed to 18 to 22 April 2021 ( <i>Conference cancelled</i> )	Published, 2021  <i>Full paper accepted and added to IMPC proceeding 2020</i>
68	Kwaku Boateng Owusu, Richmond Asamoah, John Karageorgos, Chris Greet, Max Zanin and William Skinner, Predicting mill feed grind characteristics through acoustic measurements, Minerals Engineering Journal	Published, 2021
69	B. Amankwaa-Kyeremeh, Junjie Zhang, M. Zanin, W. Skinner, R. K. Asamoah*, Feature Selection and Gaussian Process Prediction of Rougher Copper Recovery Minerals Engineering Journal	Published, 2021
70	Bismark Amankwaa-Kyeremeh, William Skinner, Richmond K. Asamoah, Comparative Study on Rougher Copper Recovery Prediction Using Selected Predictive Algorithms, International Future Mining Conference 2021.	Published, 2021
71	Bismark Amankwaa-Kyeremeh, Christopher Greet, William Skinner, Richmond K. Asamoah, Correlating Process Mineralogy and Pulp Chemistry for Quick Ore Variability Diagnosis, International Future Mining Conference 2021.	Published, 2021
72	Verdugo-Ihl, M.R., Ciobanu, C.L., Cook, N.J., Ehrig, K., Slattery, A., Courtney-Davies, L., Dmitrijeva, M., 2021. Nanomineralogy of hydrothermal magnetite from Acropolis, South Australia: genetic implications for iron-oxide copper gold mineralization. <i>American Mineralogist</i> 106, 1293-1293.	Published, 2021  <a href="#">Abstract available on Box</a>
73	Kalnins, C.A.G., Ottaway, D., Cook, N.J., Spooner, N.A., 2021. Quantification of radionuclide distribution and migration during Cu-(Fe)-sulphide mineral processing by alpha particle autoradiography. <i>Journal of Environmental Radioactivity</i> 228, 106514.	Published, 2021
74	Courtney-Davies, L., Gilbert, S.E., Ciobanu, C.L., Tapster, S.R., Richardson, M.W., Cook, N.J., Wade, B.P., Verdugo-Ihl, M.R., Ehrig, K., Maas, R., Condon, D.J., 2021. A Synthetic Haematite Reference Material for LA-ICP-MS U-Pb Geochronology and Application to Iron Oxide-Cu-Au Systems. <i>Geostandards and Geoanalytical Research</i> 45, 143-159.	Published, 2021
75	Zhu, Q.Q., Cook, N.J., Xie, G.Q., Ciobanu, C.L., Jian, W., Wade, B.P., Xu, J., 2021. Gamma-enhancement of reflected light images: a rapid, effective tool for assessment of compositional heterogeneity in pyrite. <i>American Mineralogist</i> 106, 497–505.	Published, 2021
76	Ram, R., Owen, N.D., Kalnins, C., Cook, N.J., Ehrig, K., Etschmann, B., Rollog, M., Fu, W., Vaughan, J., Pring, A., Pownceby, M.I., Spooner, N., Shaw, R., Howard, D., Hooker, A.M., Ottaway, D., Questiaux, D., Brugger, J., 2021. Understanding the mobility and retention of uranium and its daughter products. <i>Journal of Hazardous Materials</i> 410, 124553.	Published, 2021  <a href="#">Abstract available on Box</a>
77	Owen, N.D., Cook, N.J., Ram, R., Etschmann, B.E., Ehrig, K., Schmandt, D.S., Rollog, M., Guagliardo, P., Brugger, J., 2021. A sponge for radionuclides: a study on the dynamic uptake of lead by synthetic aluminium-phosphate-sulphates. <i>Minerals Engineering</i> 160, 106659.	Published, 2021



78	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
79	Cook, N.J., Ciobanu, C.L., Slattery, A., Wade, B.P., Ehrig, K. The mixed-layer structures of ikunolite, laitakarite, joséite-B and joséite-A. <i>Minerals</i> 11, 920.	Published, 2021 <a href="#">full text available on Box</a>
80	Ciobanu, C.L., Slattery, A.D., Cook, N.J., Wade, B.P., Ehrig, K. Bi <sub>8</sub> Te <sub>3</sub> , the 11-Atom Layer Member of the Tetradymite Homologous Series. <i>Minerals</i> 11, 980.	Published, 2021
81	Panagiotis Voudouris a, Alexander Repstock, Paul G. Spry, Max Frenzel, Constantinos Mavrogonatos, Manuel Keith, Alexandre Tarantola, Vasilios Melfos, Stylianos Tombros, Degao Zhai, Nigel J. Cook, Cristiana L. Ciobanu, Anna Schaarschmidt, Branko Rieck, Uwe Kolitsch, Jan J. Falkenberg: 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> , Science Direct Available online 11 July 2021: <a href="https://doi.org/10.1016/j.oregeorev.2021.104348">https://doi.org/10.1016/j.oregeorev.2021.104348</a>	Published, 2021 <a href="#">full text available on Box</a>
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