

Recent mathematical geosciences publications in Chinese with English Abstracts in Chinese Journal of Earth Science

A special issue on non-linear mathematical geosciences has been published in V. 34, No. 2, March of 2009 in Earth Science, a top earth science journal in China. The papers are written in Chinese with English Abstracts. The Earth Science publishes original papers in Chinese and papers cited by Engineering Index (EI). The Journal has been ranked top journal in China for many years. The topics of papers published in this special issue cover from review of Chinese activities in MG, to new development of non-linear mathematical geosciences and application in mineral resources, new development of weights of evidence methods, fractal and multifractal modeling of mineral textures, mineral deposit model construction, GIS technology for China National mineral resources assessments, new methods for processing geochemical data for mineral resource information extraction. A note about IGC33 and IAMG activities held in Oslo is also introduced in the special issue. This issue is published as a contribution of the China National Project on Mineral Resource Assessment and it is supported by the project “Complex Mineralization Systems and Mineral Resources Quantitative Prediction” awarded by the program of Innovation Research Team Development of Ministry of Education of China.

List of papers:

- Pengda Zhao and Qinglin Xia, Chinese scholars' achievements and contributions to the development of mathematical geosciences, Earth Sciences, 34(2): 225-232
- Qiuming Cheng et al., Application of singularity theory in prediction of Tin and Copper mineral deposits in Gejiu district, Yunnan, China: weak information extraction and mixing information decomposition, Earth Sciences, 34(2): 232-243
- Qiuming Cheng et al., Application of singularity theory in prediction of Tin and Copper mineral deposits in Gejiu district, Yunnan, China: information integration and delineation of mineral exploration targets Earth Sciences, 34(2): 243-253
- Deyi Xu and Qiuming Cheng, Simulation of Liesegang band in sphalerite in MVT deposits, Earth Sciences, 34(2): 253-258
- YongguoYong et al., Chaotic characteristics and prediction for water inrush in Mine Earth Sciences, 34(2): 258-263
- Shuyun Xie and Qiuming Cheng, Assessing microstructures of ore-minerals by multifractal modeling, Earth Sciences, 34(2): 263-270
- Chao Li et al., Generalized self-similarity theory and models, Earth Sciences, 34(2): 270-275
- Zhenghua Li et al., Application of P-A fractal model for characterizing distribution of Pyrrhotites in seven layers of basalts in Gejiu district, Yunnan, China, Earth Sciences, 34(2): 275-281
- Zhengyuan Zhang et al., Weighted weights of evidence and stepwise weights of evidence methods and their application in Sn-Cu mineral potential mapping in Gejiu, Yunnan, China, Earth Sciences, 34(2): 281-287
- Qinglin Xia et al., GIS technique of optimum delineation of target areas in mineral resources prospecting, Earth Sciences, 34(2): 287-294
- Lingqing Yao et al., Nested overlap of variograms in 3D kriging, Earth Sciences, 34(2): 294-299
- Hongzhong Li et al., Microfabric characteristics of Cherts of Bafangshan-Erlihe Pb-Zn ore field in the western Qinling, Orogen, Earth Sciences, 34(2): 299-307
- Qidong Xu et al., Tectono-magmatic evolution related to Metallogenic system in Gejiu Ore-Concentration area, Earth Sciences, 34(2): 307-314
- Jianping Chen et al., Extraction of remote sensing alteration information in Tuotuohe, Qinhai

- Province, China, *Earth Sciences*, 34(2): 314-319
- Shouyu Chen et al., Mineralization multiformity and deep prospecting of Gejiu Super-large Sn-Cu polymetallic deposit, *Earth Sciences*, 34(2): 319-325
 - Yongqing Chen and Pengda Zhao, Extraction and integration of geoanomalies associated with mineralization, *Earth Sciences*, 34(2): 325-338
 - Qiuming Cheng et al., Application of GIS-Model Builder technology for National Mineral Resources Assessments, *Earth Sciences*, 34(2): 338-347
 - Shengyuan Zhang et al., Application of Non-negative matrix factorization in stream sediment geochemical data processing, *Earth Sciences*, 34(2): 347-353
 - Zhijun Chen et al., Comparison of different models for anomaly recognition of geochemical data by using sample ranking method, *Earth Sciences*, 34(2): 353-365
 - Jingning Huang et al., Quantitative extraction and estimation of conceal mineralization anomalies of Pt-Cu-Au in Eastern Yunnan Province, *Earth Sciences*, 34(2): 365-375
 - Junqi Liu et al., Integrated model and key technique of quantification expression of mineral resources prospecting, *Earth Sciences*, 34(2): 375-381
 - Xitao Xin et al., Geospatial complex structure simulation and analysis of geological didasters using Petri Net, *Earth Sciences*, 34(2): 381-386