

Curriculum Vitae



Shengwen Qi

Ph.D, Professor

Director of Key Lab of Shale Gas and Geoengineering, Chinese Academy of Sciences
Institute of Geology and Geophysics, Chinese Academy of Sciences (IGGCAS)
University of Chinese Academy of Sciences (UCAS)

Acting Vice President for Asia, IAEG (2024.6 -)

Chairman of C29, IAEG (2017 -)

Secretary General of IAEG China National Group (2008 -)

Secretary General of Engineering Geology Commission, Chinese Society of Geology (2020 -)

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CHINA

◆ **Discipline category**

Engineering Geomechanics

◆ **Research direction**

Specialized in engineering geomechanical problems of rock mass related to slope (sliding), tunnel, underground excavations, CO₂ sequestration etc. The research interests include dynamic effect of rock mass, seismic response of rock slope, deformation and failure of underground engineering rock mass in high in-situ stress area, gravity deformation in deep slope and corresponding shallow crust dynamic characteristics.

◆ Brief introduction

Qi Shengwen is a full professor at the Institute of Geology and Geophysics, Chinese Academy of Sciences. He mainly researches the seismic dynamic response of rock slope, the dynamic effect of rock mass structure and the genetic mechanism of gravity deformation of high rock slope. Prof. Qi is also the Acting Vice President for Asia, IAEG since June, 2024, Chairman of IAEG C29, Secretary General of IAEG China National, Life Council Member of International Consortium on Geo-Disaster Reduction (ICGDR), Director of the Key Laboratory of Shale Gas and Geological Engineering of Chinese Academy of Sciences, Secretary General of Engineering Geology Committee of Chinese Geological Society. Standing Member of Chinese Society of Rock Mechanics and Engineering, Vice Chairman of Rock Dynamics Committee, Editorial board member of *Engineering Geology*, *Bulletin of Engineering Geology and the Environment*, and other authoritative journals in the field of Engineering Geology. Prof. Qi has presided over more than 20 national basic research projects, science and technology research projects aimed for key task, as well as projects entrusted by national large enterprises, including: 1 special task of scientific and technological basic resources investigation, 1 outstanding youth project, 1 excellent youth project of National Natural Science Foundation of China, 2 major project topics, 3 general projects, 1 strategic pilot special project (Class A) project of CAS, 1 key deployment project of CAS; Prof. Qi has **published more than 200 papers and his papers have been cited for more than 4000 times**. He has published 9 monographs, developed 1 set of research equipment, and authorized more than 60 patents. Prof. Qi has won national outstanding foundation and excellent foundation from NSFC in 2018 and 2013 respectively and he has been awarded the title of Leading Talent of Science and Technology Innovation in the National Ten Thousand Talents Program, the Runner-up of Richard Wolters Prize of IAEG Young Top Science and Technology Award, and the First Prize of Natural Science of China Society of Rock Mechanics and Engineering, etc.

◆ Experience

- 2002-2004, Post Doctor, Institute of Geology and Geophysics, CAS
- 2004-2007, Assistant Professor, Institute of Geology and Geophysics, CAS
- 2007-2008, Research Associated, Department of Civil Engineering, the University of Hongkong
- 2007-2014, Associate Professor, Institute of Geology and Geophysics, CAS
- 2012.5-2013.6, Visiting professor, University of Alberta, Canada
- 2014.12- Professor, Institute of Geology and Geophysics, CAS

◆ Invited lecture in Major International Conferences

1. *Spalling and damage in marble-China*, 47th U.S. Rock Mechanics/Geomechanics Symposium, 2013-6, San Francisco, USA;
2. *Topographic effects on the seismic responses of single free surface slopes and coseismic landslides*, 4th International Symposium on Mega Earthquake Induced Geo-disasters and Long Term Effects, 2015-5, Chengdu, China;
3. *Behavior of dip bedded rock slope under shaking table test*, 14th International symposium on Geo-disaster Reduction, 2016-10, Chengdu, China;
4. *A Toppling failure of the right bank slope in a hydropower station, SW China*, 15th

International Symposium on Geo-disaster Reduction, 2017-8, Kyoto, Japan;

5. *A new method to predict the occurrence of rock burst*, The 2nd Badong International Geohazards Symposium, 2019-8, Badong, China;
6. *Classification of rock mass structure and its scale effect*, 12th Asian Regional Conference of IAEG, 2019-9, Jeju, Korea;
7. *Seismic response characteristics and deformation evolution of the bedding rock slope using a large-scale shaking table*, ICGdR 2021, 2021-7, Qinghai, China;
8. *Dynamic response and progressive failure of rock slope under strong earthquakes*, 13th Asian Regional Conference of IAEG, 2021-11, Singapore.

◆ **International cooperative research**

1. In October 2017, Prof. Barra, an international rock mechanics expert and Italian Polytechnic University of Turin, was invited to China to carry out cooperative research;
2. In May 2018, Prof. Juang, an international expert in engineering geology and Clemson University, was invited to China to carry out cooperative research;
3. In June 2018, Prof. Barra, an international expert in rock mechanics and the Polytechnic University of Turin, Italy, was invited again to China to carry out cooperative research;
4. In November 2018, Prof. Sandra, an international expert in structural geology and the University of Leeds, UK, was invited to China to carry out cooperative research.

◆ **International academic activities convened and organized**

1. **2018-9, International Workshop of IAEG Commission No.29 Structure and Behavior of Soil and Rock Mass: Structure and Behavior of Soil and Rock Mass, XIII IAEG Congress, convener, San Francisco, USA**
2. **2018-11, International Workshop of IAEG Commission No.29 Structure and Behavior of Soil and Rock Mass: Study on the Collapse Mechanism and Structure Effect of Loess at Macro and Micro Level, convener and organizer, Beijing, China**
3. **2019-5, International Conference on Silk-roads Disaster Risk Reduction and Sustainable Development Conference Session 4: Engineering Geology and Geological Engineering, convener, Beijing, China**
4. **2019-3, International Workshop of IAEG Commission No.29 Structure and Behavior of Soil and Rock Mass in the 12th Asian Regional Conference, convener, Jeju, Korea**
5. 2020-11, 18th International Symposium on Geo-disaster Reduction & 4th Gu Dezhen Lecture, convener and organizer, Beijing, China
6. **2023-9, The XIV IAEG Congress, vice chairman of the organizational committee, Chengdu, China**
7. **2023-9, T01S02: Structure of Soil and Rock Mass, XIV IAEG Congress, convener, Chengdu, China**

8. **2023-9, International Jointed Workshop of IAEG C29, C36 and C38 , XIV IAEG Congress, convener, Chengdu, China**
9. **2023-9, The International Young Scientist Forum on Engineering Geomechanics and Deep Geological Engineering, chairman of the organizational committee, Beijing, China**
10. 2023-10, International Conference on Climate Change and Disaster Risk-Major Projects Disaster and its Mitigation Session, President of the Conference, Islamabad, Pakistan

◆ **Awards**

1. in 2020, the First Prize of Natural Science of China Society of Rock Mechanics and Engineering, the dynamic response law and damage catastrophe mechanism of engineering rock mass under strong earthquakes
 2. in 2018, Leading Talent of Science and Technology Innovation in the National Ten Thousand Talents Program of the Ministry of Science and Technology, China
 3. in 2018, the National Science Fund for Distinguished Young Scholars
 4. in 2016, the First Prize of Natural Science of China Society of Rock Mechanics and Engineering, the causes of deformation and failure of high energy storage rock mass during excavation and unloading and its engineering environmental effects
- 5. in 2014, Runner-up of Richard Wolters Prize, IAEG**
6. in 2013, the National Science Fund for Excellent Young Scholars
 7. in 2011, the Lu Jiaxi Youth Science and Technology Award of the Chinese Academy of Sciences
 8. in 2010, the Youth Science and Technology Award of China Society of Rock Mechanics and Engineering
 9. in 2008, Golden Hammer Award of the 11th Youth Geological Science and Technology Award of China Geological Society
 10. in 2006, the Third Prize of Xinjiang Scientific and Technological Progress Award
 11. in 2006, the Annual International Fellowship Awarded by the American Society of Civil Engineers at the World Water Resources and Environment Conference
 12. in 2002, the Excellent Award of the President of the Chinese Academy of Sciences
 13. In 2001, Excellent paper of the 7th National Rock Dynamics Symposium

◆ A list of 10 most important publications

1. **Shengwen Qi**, Keh-Jian Shou, Haris Saroglou, Renato Macciotta. Advances in Rock Mass Engineering Geomechanics. *Engineering Geology*, 17 April, Elsevier B.V. 2020. All rights reserved, ISSN: 0013-7952.
2. **Shengwen Qi**, Bowen Zheng, Zan Wang, Haijun Zhao, Zhendong Cui, Tianming Huang, Songfeng Guo, Lei Fu, Pingchuan Dong. 2023. Geological evaluation for the carbon dioxide geological utilization and storage (cgus) site: a review. *SCIENCE CHINA Earth Sciences*. DOI: 10.1007/s11430-022-1107-x
3. Guangming Luo, **Shengwen Qi***, Bowen Zheng. Rate effect on the direct shear behavior of granite rock bridges at low to subseismic shear rates. *Journal of Geophysical Research: Solid Earth*, 2022, 127: e2022JB024348.
4. **Shengwen Qi**, Jianxian He, Zhifa Zhan. A single surface slope effects on seismic response based on shaking table test and numerical simulation. *Engineering Geology*, 2022, 306: 106762.
5. **Shengwen Qi**, Bowen Zheng, Faquan Wu, Xiaolin Huang, Songfeng Guo, Zhifa Zhan, Yu Zou, Giovanni Barla. A New Dynamic Direct Shear Testing Device on Rock Joints. *Rock Mechanics and Rock Engineering*, 2020, 53: 4787-4798.
6. **Shengwen Qi**, Hengxing Lan, Derek Martin, Xiaolin Huang. Factors controlling the difference in brazilian and direct tensile strengths of the Lac du Bonnet Granite. *Rock Mechanics and Rock Engineering*, 2020, 53: 1005-1019.
7. Xiaolin Huang, **Shengqwen Qi***, Kaiwen Xia, Xiaoshan Shi. Particle crushing of a filled fracture during compression and its effect on stress wave propagation. *Journal of Geophysical Research: Solid Earth*, 2018, 123(7): 5559-5587.
8. **Shengwen Qi**, Yu Zou, Faquan Wu, Changgen Yan, Jinghui Fan, Mingdong Zang, Shishu Zhang, Ruyi Wang. A recognition and geological model of a deep-seated ancient landslide at a reservoir under construction. *Remote Sensing*, 2017, 9: 383.
9. **Shengwen Qi***, Hengxing Lan, Jinyu Dong. An analytical solution to slip buckling slope failure triggered by earthquake. *Engineering Geology*, 2015, 194: 4-11.
10. **Shengwen Qi***, Faquan Wu, Zhong Qi Yue, Chunling Liu. Characteristics and mechanism of deep weathering of argillaceous limestones at Fengjie County, Three Gorges Region, Central China. *Bulletin of Engineering Geology and the Environment*, 2012, 71: 285-295.

◆ Monographs

- [1] **Shengwen Qi**, Faquan Wu, Fuzahng Yan, Chunlin Liu, 2007, Rock Slope Dynamic Response Analysis, Beijing, Science press. (in Chinese)
- [2] Faquan Wu, **Shengwen Qi**, Shengwu Song, Manfu Gong, 2008. Complex high steep rock slope deformation and stability - taking Jinping I Hydropower Station for example. Beijing, Science press. (in Chinese)
- [3] Liqiang Tong, **Shengwen Qi**, Guoying An, Chunling Liu, 2012, Remote sensing investigation of major geological disasters in The Himalayas, Beijing, Science press. (in Chinese)
- [4] Shishu Zhang, Congyan Ran, Xiaoping Zhao, **Shengwen Qi**, Panfeng Li, 2019, Study on deformation and failure mechanism and prevention of large reservoir in alpine-canyon terrain. 2019. China Water Resources and Hydropower Press. (in Chinese)

◆ Participation books

- [1] **Shengwen Qi**, Chapter 2, Atlas of remote sensing for Wenchuan earthquake disaster (Director author: Huadong Guo), 2008, Science press. (in Chinese)
- [2] **Shengwen Qi**, Chapter 2, Atlas of remote sensing of the Wenchuan Earthquake (Director author: Guo Huadong), 2009, Taylor & Fancis Group CRC Press
- [3] **Shengwen Qi**, Chapter 5, Study of slope instability mechanism and dynamic induced by strong earthquake, Geohazard Assessment of Wenchuan Earthquake (Director author: Runqiu Huang), 2010, Science Press. (in Chinese)
- [4] **Shengwen Qi**, Chapter 3.3.3, Engineering geology and hydrogeological conditions, National Wenchuan earthquake reconstruction planning - resources and environment carrying capacity assessment (Edited by Jie Fan), 2009 (in Chinese)
- [5] **Shengwen Qi**, Chapter 5, Measures and suggestions, Development strategy of engineering geology (Director authosr: Jianbing Peng and Huiming Tang), 2024, Science Press. (in Chinese)

◆ Editor in chief

- [1] Faquan Wu and **Shengwen Qi**. 2013, Geological view of Engineering Geology and the Environment. Beijing, China, 24-25 Sept, CRC Press Taylor and Francis Group, ISBN 978-1-138-00078-0.
- [2] **Shengwen Qi**, Keh-Jian Shou, Haris Saroglou, Renato Macciotta. 2020. Advances in Rock Mass Engineering Geomechanics. Engineering Geology, 17 Apr., Copyright © 2021 Elsevier B.V. All rights reserved, ISSN: 0013-7952.
- [3] Jianbing Peng, Tom Dijkstra, Ann Williams, **Shengwen Qi**. 2018. Special issue on “Loess engineering properties and loess geohazards”. Engineering Geology, 26 March, Copyright © 2017 Elsevier B.V. All rights reserved, ISSN: 0013-7952.

◆ Journal papers since 2000

2024

- [1] Li, J., Guo, S., **Qi, S.**, Wei, Q., Zheng, B., Zou, Y., ... & Lu, X. (2024). Spatial Variations of Deformation along a Strike-Slip Fault: A Case Study of Xianshuihe Fault Zone, Southwest China. *Applied Sciences*, 14(6), 2439.

- [2] Bowen Zheng *, **Shengwen Qi** *, Songfeng Guo, Ning Liang, Guangming Luo, Xiaohui Zhang, Wei Lu, Chao Jin, Yongchao Li, Xin Yu, Zifang Zhu. 2024. Experimental study of direct shear behaviours of anisotropic reservoir shale. *Energies*. 17(8), 1977.
- [3] Zhang, Y., Chu, B., Huang, T., **Qi, S.**, Manga, M., Zhang, H., ... & Zhou, Y. 2024. Using the Tidal Response of Groundwater to Assess and Monitor Caprock Confinement in CO₂ Geological Sequestration. *Water*, 16(6), 868.
- [4] **Shengwen Qi***, Songfeng Guo, Muhammad Faisal Waqar, Xiating Feng. 2024. Prediction of brittle rock failure severity: An approach based on rock mass failure progress. *Journal of Rock Mechanics and Geotechnical Engineering*. <https://doi.org/10.1016/j.jrmge.2024.03.005>
- [5] Gao, Q., Hasan, M., Shang, Y., & **Qi, S.** 2024. Geophysical estimation of 2D hydraulic conductivity for groundwater assessment in hard rock. *Acta Geophysica*, 1-12.
- [6] Zhang, Y., Manga, M.* , Fu, L. - Y., Zhang, H., Huang, T. *, Yang, Q., Cui Z., **Qi, S.***& Huang, Y. . (2024). Long - and short - term effects of seismic waves and coseismic pressure changes on fractured aquifers. *Journal of Geophysical Research: Solid Earth*, 129, e2023JB027970. <https://doi.org/10.1029/2023JB027970>
- [7] Xiaokun Hou, **Shengwen Qi***, Yan Li, Tonglu Li, Songfeng Guo, Hua Li, Yu Wang. 2024. Hydraulic conductivity over a wide suction range of loess with different dry densities. *Journal of Rock Mechanics and Geotechnical Engineering*. <https://doi.org/10.1016/j.jrmge.2024.02.006>.
- [8] Zan Wang*, **Shengwen Qi**, Bowen Zheng*. 2024. Uncertainty Analysis of the Storage Efficiency Factor for CO₂ Saline Resource Estimation. *Energies*, 17(6), 1297, <https://doi.org/10.3390/en17061297>.
- [9] Beixiu Huang, Sijia Qiao, Xulei Chen, Lihui Li, **Shengwen Qi**, 2024, Dynamic response of mountain tunnel, bridge, and embankment along the Sichuan-Tibet transportation corridor to active faults based on model tests, *Journal of Mountain Sciences*, 21, 182–199. <https://doi.org/10.1007/s11629-023-8143-1>.
- [10] Guo, S., Wei, Q., **Qi, S.**, Xue, L., Zheng, B., Wang, H., ... & Huang, Z. (2024). Research Progress on the Geomechanical Properties of Block-in-Matrix Rocks. *Materials*, 17(5), 1167.
- [11] Guo, S., Li, J., **Qi, S.**, Zheng, B., Zhang, Y., Zou, Y., ... & Zada, K. Stress Disturbance around Xianshuihe Fault Zone in the eastern Qinghai-Tibet Plateau and Implication for Fault Stability. *Frontiers in Earth Science*, 12, 1373353.
- [12] Xin Yu, Yuye Tan, Weidong Song, John Kemeny, **Shengwen Qi**, Bowen Zheng, Songfeng Guo. 2024. Damage Transformation of Rock-encased-backfill Structure under Triaxial Stepwise-increasing-amplitude Cyclic Loading. *Journal of Rock Mechanics and Geotechnical Engineering*, , Vol 16, Issue 2, February 2024, Pages 597-615. <https://doi.org/10.1016/j.jrmge.2023.11.015>
- [13] Wang, X., Clague, J. J., Frattini, P., **Qi, S.**, Lan, H., Zhang, W., ... & Crosta, G. B. (2024). Effect of short-term, climate-driven sediment deposition on tectonically controlled alluvial channel incision. *Geology*, 52(1), 17-21.

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- [1] **Shengwen Qi***, Bowen Zheng, Zan Wang, Haijun Zhao, Zhendong Cui, Tianming Huang, Songfeng Guo, Lei Fu, Pingchuan Dong. 2023. Geological Evaluation for the Carbon Dioxide Geological Utilization and Storage (CGUS) Site: A review. *Science China: Earth Sciences*, 66(9): 1917–1936, <https://doi.org/10.1007/s11430-022-1107-x>

- [2] **Qi Shengwen**, ZHENG Bowen, LU Wei, WANG Zan, GUO Songfeng. Investigation of indexes system and suitability evaluation for carbon dioxide geological storage site[J]. *Quaternary Sciences*, 2023, 43(2): 523-550. DOI: 10.11928/issn.1001-7410.2023.02.19
- [3] Daping Tai, **Shengwen Qi***, Bowen Zheng, Guangming Luo, Jianxian He, Songfeng Guo, Yu Zou, Zan Wang. Effect of excitation frequency and joint density on the dynamic amplification effect of slope surface on jointed rock slopes. *Engineering Geology*, 2024, Volume 330. 107385. <https://doi.org/10.1016/j.enggeo.2023.107385>
- [4] Lu Xiao, Qi Shengwen, Zheng Bowen, et al. 2023. Distribution and hazard assessment of collapses and landslides in Sichuan-Tibet traffic corridor[J]. *Journal of Engineering Geology*, 31(3): 718-735. DOI: 10.13544/j.cnki.jeg.2023-0085. (in Chinese)
- [5] Li Jinxuan, Guo Songfeng, **Qi Shengwen**, et al. 2023. Stress field and potential underground geohazards in eastern margin of Qinghai-Tibet Plateau[J]. *Journal of Engineering Geology*, 31(3): 736-749. DOI: 10.13544/j.cnki.jeg.2023-0112. (in Chinese)
- [6] Guangming Luo, **Shengwen Qi***, Bowen Zheng, Songfeng Guo, Manchao He*. 2023. Shear performance of quasi-NPR steel bolted rock joints at different shear rates. *International journal of rock mechanics and mining sciences*. <https://doi.org/10.1016/j.ijrmms.2023.105542>
- [7] Bowen Zheng, **Shengwen Qi***, Wei Lu, Songfeng Guo, Ning Liang, Xin Yu, Zan Wang*. 2023. Laboratory test study on supercritical carbon dioxide fracturing granite: a quantitative review. *Geomechanics and Geophysics for Geo-Energy and Geo-Resources*, 9, 98. <https://doi.org/10.1007/s40948-023-00636-x>
- [8] Bowen Zheng, **Shengwen Qi***, Wei Lu, Songfeng Guo*, Zan Wang, Xin Yu, Yan Zhang. 2023. Experimental research on supercritical carbon dioxide fracturing sedimentary rock: a critical review. *Acta Geologica Sinica (English Edition)*, 97(3): 925–945
- [9] Zhang, Y., Fu, L. Y., Zhu, A., Zhao, L., **Qi, S.**, Huang, T., ... & Zhang, W. (2023). Anisotropy and Heterogeneity Induced by Shale in Aquifer lithology—Influence of Aquifer Shale on the Leaky Model With Tidal Response Analysis. *Water Resources Research*, 59(2), e2021WR031451.
- [10] Wang, X., Clague, J. J., Frattini, P., **Qi, S.**, Lan, H., Zhang, W., ... & Battista Crosta, G. 2023. Effect of short-term, climate-driven sediment deposition on tectonically controlled alluvial channel incision. *Geology*. 52 (1): 17 – 21. <https://doi.org/10.1130/G51671.1>
- [11] Xiaokun Hou, **Shengwen Qi***, Yongtang Yu, Jianguo Zheng. 2023. Long-term settlement characterization of high-filling foundation in the mountain excavation and city construction area of the Yan'an New District, China. *Journal of Earth Sciences*. 34, 1908–1915. <https://doi.org/10.1007/s12583-023-1950-x>
- [12] Li, G., Zang, M*, **Qi, S***, Bo, J., Yang, G., & Liu, T. (2023). An Infinite Slope Model Considering Unloading Joints for Spatial Evaluation of Coseismic Landslide Hazards Triggered by a Reverse Seismogenic Fault: A Case Study of the 2013 Lushan Earthquake. *Sustainability*, 16(1), 138.
- [13] Wang, X. L., Sun, J. J., Wang, S. S., **Qi, S. W.**, Zhao, H. J., Guo, S. F., & Wang, X. H. 2023. Spatiotemporal distribution of regional landslides and erosion rates in Southeastern Tibet. *Journal of Mountain Science*, 20(6), 1650-1659.
- [14] Chu, B., Feng, G., Zhang, Y.*, **Qi, S.**, Li, P., & Huang, T. 2023. Residual Saturation Effects on CO₂ Migration and Caprock Sealing: A Study of Permeability and Capillary Pressure Models. *Water*, 15(18), 3316.
- [15] Hou, X., **Qi, S.**, & Liu, F. 2023. Soil Water Retention and Pore Characteristics of Intact Loess Buried at Different Depths. *Sustainability*, 15(20), 14890.

- [16] Guo, X., Fu, B., Du, J., **Qi, S.**, Shi, P., & Hou, X. 2023. Enhancing post-seismic landslide susceptibility modeling in China through a time-variant approach: a spatio-temporal analysis. *International Journal of Digital Earth*, 16(2), 4265-4295.
- [17] Yongchao Li, **Shengwen Qi***, Bowen Zheng, Xianglong Yao, Songfeng Guo, Yu Zou, Xiao Lu, Fengjiao Tang, Xinyi Guo, Muhammad Faisal Waqar and Khan Zada. 2023. Multi-Scale Engineering Geological Zonation for Linear Projects in Mountainous Regions: A Case Study of National Highway 318 Chengdu-Shigatse Section. *Remote Sensing*, 15(13), 3273.
- [18] Jinhao Dai, Fengqiang Gong*, **Shengwen Qi**, Lei Xu, 2023, Quantitative evaluation of rockburst proneness for surrounding rocks considering combined effects of the structural plane and excavation disturbance. *Tunnelling and Underground Space Technology*.
<https://doi.org/10.1016/j.tust.2023.105335>
- [19] Sun, J., Wang, X., Guo, S., Liu, H., Zou, Y., Yao, X., ... & **Qi, S***. 2023. Potential Rockfall Source Identification and Hazard Assessment in High Mountains (Maoyaba Basin) of the Tibetan Plateau. *Remote Sensing*, 15(13), 3273.
- [20] Wang, X., Zhang, Y., Clague, J. J., Guo, S., Jiao, Q., Wang, J., ... & **Qi, S.** (2023). Study of a Steady-State Landscape Using Remote Sensing and Topographic Analysis. *Remote Sensing*, 15(10), 2583.
- [21] Waqar, M. F., Guo, S., & **Qi, S.** (2023). A Comprehensive Review of Mechanisms, Predictive Techniques, and Control Strategies of Rockburst. *Applied Sciences*, 13(6), 3950.
- [22] Zhang, X., Huang, X., **Qi, S.**, Zheng, B., Guo, S., & Lu, W. (2023). Numerical Simulation on Shale Fragmentation by a PDC Cutter Based on the Discrete Element Method. *Energies*, 16(2), 965.

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- [1] **Shengwen Qi***, Jianxian He, Zhifa Zhan. 2022. A single surface slope effects on seismic response based on shaking table test and numerical simulation, *Engineering Geology*, 306, 106762.
- [2] Guangming Luo, **Shengwen Qi***, Bowen Zheng*. 2022. Rate effect on the direct shear behavior of granite rock bridges at low to subseismic shear rates. *Journal of Geophysical Research: Solid Earth*, 127, e2022JB024348.
- [3] [Yu Zou, **Shengwen Qi***, Songfeng Guo, Bowen Zheng, Zhifa Zhan, Naiwu He, Xiaokun Hou, Haiyang Liu, 2022, Factors Controlling the Spatial Distribution of Coseismic Landslides Triggered by the Mw 6.1 Ludian Earthquake in China, *Engineering Geology*, 106477,
<https://doi.org/10.1016/j.enggeo.2021.106477>
- [4] Jianxian He, Zhifa Zhan, **Shengwen Qi***, Bowen Zheng, Guoxiang Yang, Songfeng Guo, Xiaolin Huang, Yu Zou, Ning Liang. 2022. Seismic response of a rock slope under wide frequency shear loads using a large-scale shaking table test, *Natural Hazards*. 1-25.
<https://doi.org/10.1007/s11069-022-05782-1>
- [5] Daping Tai, **Shengwen Qi***, Bowen Zheng, Chonglang Wang, Songfeng Guo, Guangming Luo. 2022. Investigation on Shear Mechanical properties and Energy evolution of Rock-like samples Containing multiple combination of non-persistent joints. *Journal of Rock Mechanics and Geotechnical Engineering* 15(7), 1651-1670. <https://doi.org/10.1016/j.jrmge.2022.11.014>
- [6] Xiaolin Huang*, **Shengwen Qi***, Songfeng Guo, Bowen Zheng, Qi Zhao, Peng Sha, Tianzuo Wang, Xianglong Yao, Ning Liang. 2022. Effect of the Crystal Habit on Micromechanical Extensile Behaviors of Crystalline Rocks during Compression. *Engineering Geology*, 310, 106874.

- [7] Xiaokun Hou, **Shengwen Qi***, Xiaolin Huang, Songfeng Guo, Yu Zou, Lina Ma, Linxin Zhang. 2022. Hydrate morphology and mechanical behavior of hydrate-bearing sediments: A critical review, *Geomechanics and Geophysics for Geo-Energy and Geo-Resources*, 8(5):161.
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- [9] Yanfang Wu, Xiao Li*, Luqing Zhang, **Shengwen Qi**, Jian Zhou, Jianming He, Zhaobin Zhang, Xiukuo Sun. 2022. Heterogeneity induced strain localization in block-in-matrix-soils subjected to uniaxial loading using real-time CT scanning. *Journal of Rock Mechanics and Geotechnical Engineering*
<https://doi.org/10.1016/j.jrmge.2022.11.008>
- [10] Yan Zhang, Xiaolong Sun, Tianming Huang, **Shengwen Qi**, Li-Yun Fu, Qiu-Ye Yang, Junhua Hu, Bo-wen Zheng, Wang Zhang. 2022. Possible Continuous Vertical Water Leakage of Deep Aquifer: Records from a Deep Well in Tianjin Province, North China, *Geofluids*, 4419310.
- [11] Mingdong Zang, Guoxiang Yang, Jinyu Dong, **Shengwen Qi**, Jianxian He, Ning Liang. 2022. Experimental study on seismic responses and progressive failure characteristics of bedding rock slope. *Journal of Rock Mechanics and Geotechnical Engineering*,
<https://doi.org/10.1016/j.jrmge.2022.06.004>
- [12] Shishu Zhang, Songfeng Guo*, **Shengwen Qi**, Fengjiao Tang, Jinshan Hu, Xiaoping Zhao, Congyan Ran, Xin Wang, Yu Zou, Xiaolin Huang, Bowen Zheng, Ning Liang. 2022. Investigation on long-term progressive deformation of engineering slope based on comprehensive monitoring, *Journal of Mountain Science*, 19(6), 1576-1587.
- [13] Fangcui Liu, **Shengwen Qi***, Shenglin Qi, Xiaokun Hou, Yanrong Li, Guangming Luo, Lei Xue, Xueliang Wang, Juanjuan Sun, Songfeng Guo*, Bowen Zheng. In-situ horizontal extrusion test of herbaceous root-soil with different root types. *Journal of Earth Science*.
DOI:10.1007/s12583-022-1661-x
- [14] Zuan Chen, Zhihe Jin, Xiaoge Huang, **Shengwen Qi**. 2022. A damage mechanics analysis on Rheological failure of rocks under high temperatures and pressures. *American Journal of Physics and Applications*, 10(2):24-32. DOI:10.11648/j.ajpa.20221002.11
- [15] [Hao Tang*, Jinzhi Luo, Zhao Duan, Dongpo Wang, **Shengwen Qi**. 2022, Experimental investigation of the creep behaviour of remoulded loess under different levels of compactness. *PloS one*, 17(1): e0262456. <https://doi.org/10.1371/journal.pone.0262456>
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