



## Monday, November 15, 2021

8:00am - 8:10am	<b>Opening General Session</b> <ul style="list-style-type: none"> <li>Welcome/Chapter Introductions</li> <li><i>Dr. Liang Yuan and Conference Chair Shimin Liu</i></li> </ul>	
8:10am - 10:30am	<b>Keynote Session</b>	
8:10am - 8:40am	<b>TBA</b> <i>Liang Yuan, Professor, Academician of Chinese Academy of Engineering, President of Anhui University of Science and Technology</i>	
8:40am - 9:20am	<b>Mine Dust Research Gaps Based on NASEM Report and Lessons Learned for Dust Characterization</b> <i>Emily Sarver, Associate Professor, Virginia Tech</i>	
9:20am - 10:00 am	<b>Characterization of Particulates in Australian Mines</b> <i>Nikky LaBranche, Researcher, University of Queensland</i>	
10:00am - 10:30 am	<b>TBA</b> <i>Fubao Zhou, Professor, China University of Mining and Technology, Beijing</i>	
10:30am - 10:50am	<b>Break/ Breakroom Networking</b>	
10:50am - 12:10pm	<b>Technical Session 1 Dust and Aerosol Characterization I</b>	
10:50am - 11:10am	<b>Segregation Of Respirable Dust for Chemical and Toxicological Analyses</b> <i>Teresa L. Barone, Chemical Engineer at Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Pittsburgh</i>	



# 1st International Symposium on Mine Dust and Aerosol Research Conference Agenda



11:10am - 11:30am	<p><b>Toxicity of Respirable Coal Mine Dust: Study of Metals Dissolution of RCMD in Lung Fluids</b>  <i>Pedram Roghanchi, Assistant Professor, New Mexico Tech University</i></p>	
11:30am - 11:50am	<p><b>TBA</b>  <i>ShengXue, Professor, Anhui University of Science and Technology</i></p>	
11:50am - 12:10 am	<p><b>Study on acceleration characteristics of compound flame of gas / coal dust explosion</b>  <i>Pei Bei, Professor, Henan Polytechnic University</i></p>	
<b>10:50am - 12:10pm</b>	<b>Technical Session 2 Best Practices for Dust Control I</b>	
10:50am - 11:10am	<p><b>Dust control in Mental/Nonmental Mining: Practices and Case Studies</b>  <i>Gang Li, Professor and Chief Engineer, SINOSTEEL</i></p>	
11:10am - 11:30am	<p><b>Research Progress on the Prevention of Pneumoconiosis in China</b>  <i>Gang Zhou, Professor, Shandong University of Science and Technology</i></p>	
11:30am - 11:50am	<p><b>Calibration Of Low-Cost PM Sensors for Coal Dust Monitoring</b>  <i>Gang Wang, Professor, Shandong University of Science and Technology</i></p>	
11:50am - 12:10 am	<p><b>Water Injection into Coal Seam and Its Implication on Dust Control</b>  <i>Yanbin Yu, Associate Professor, Shandong University of Science and Technology</i></p>	
<b>12:10pm - 1:00pm</b>	<b>Lunch Break</b>	
<b>1:00pm - 2:40pm</b>	<b>Technical Session 3 Dust and Aerosol Health Effects and Regulatory Policy</b>	

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1:00pm - 1:20pm	<p><b>Lung-Based Exosomal Inhibition Mediates Systemic Impacts Following Mine-Site Derived Particulate Matter Exposure</b>  <i>Katherine Zychowski, Assistant Professor, The University of New Mexico</i></p>	
1:20pm - 1:40pm	<p><b>New Respirator Fit Test Panels Representing the Current Chinese Civilian Workers</b>  <i>Weihong Chen, Professor, Huazhong University of Science and Technology</i></p>	
1:40pm - 2:00pm	<p><b>Improving Self-Efficacy in Care of Miners by Multidisciplinary Groups Via Virtual Community Partnerships</b>  <i>Kevin Vlahovich, MD, The University of New Mexico</i></p>	
2:00pm - 2:20pm	<p><b>Particulate Matter: Fine and Ultrafine - How Emerging Data on Engineered Nanomaterials May Change How We Regulate Worker Exposures to Dust</b>  <i>Jeremy M. Gernand, Associate Professor, Penn State University</i></p>	
2:20pm - 2:40pm	<p><b>Toxicity of the Respirable Dust - An Overview</b>  <i>Eskanolou Amir, Graduate Student, Penn State University</i></p>	
2:40pm - 3:00pm	<p><b>Break/ Breakroom Networking</b></p>	
3:00pm - 5:00pm	<p><b>Technical Session 4 Dust Generation and Transport</b></p>	
3:00pm - 3:20pm	<p><b>Dust in Mining Environment, Control Standards, and Research on Drilling Dust</b>  <i>Yi Luo, Professor, West Virginia University</i></p>	
3:20pm - 3:40pm	<p><b>Improved Canopy Air Curtain Dust Protection Using A Novel Design Combining the Impinging Jet and A Two-Level Manifold</b>  <i>Guang Xu, Associate Professor, Missouri University of Science and Technology</i></p>	

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3:40pm - 4:00pm	<p><b>Airborne Dust Generation and Dispersion Due to Remote LHD Mucking in An Open Stope of A Mechanized Underground Metalliferous Mine</b>  <i>Paluchamy B., Indian Institute of Technology (Indian School of Mines) Dhanbad</i></p>	
4:00pm - 4:20pm	<p><b>The Fate of Inhaled Uranium-Containing Dust Upon Clearance to Human GI Tract</b>  <i>Milton Chandra Das, Graduate Student, New Mexico Institute of Mining and Technology</i></p>	
4:20pm - 4:40pm	<p><b>Simulation Study on Multi-phase Coupling Law of Airflow-Droplet-Dust in Fully Mechanized Mining Face</b>  <i>Haiming Yu, Lecture, Shandong University of Science and Technology</i></p>	
4:40pm - 5:00pm	<p><b>A Systematic Review of Occupational Exposure to Respirable Coal Mine Dust (RCMD) in the Mining Industry</b>  <i>Younes Shekarian, Graduate Student, Penn State University</i></p>	

## Tuesday, November 16, 2021

8:00am - 10:20am	<b>Keynote Session</b>	
8:00am - 8:30am	<p><b>Dust Control Theory and Technical Equipment System of Difficult Wetting Coal Seam in Mining Face</b>  <i>Weimin Cheng, Professor, Shandong University of Science and Technology</i></p>	
8:30am - 9:10am	<p><b>Overview of Respirable Crystalline Silica (RCS) Air Sampling and Laboratory Analysis</b>  <i>Keith Rickabaugh, CIH, Technical Director at RJ Lee Group</i></p>	
9:10am - 9:50am	<p><b>NIOSH Mining Research for Respirable Coal and Silica Dust</b>  <i>Randy Reed, Office of Mine Safety and Health Research, NIOSH</i></p>	

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9:50am - 10:20am	<p><b>Prevalence of pneumoconiosis and counter measures in China coal mines</b>  <i>Jun Ma, Professor, Secretary General of China Occupational Safety &amp; Health Association (COSHA)</i></p>	
10:20am - 10:40am	<p><b>Break/ Breakroom Networking</b></p>	
10:40am - 12:00am	<p><b>Technical Session 5 Dust and Aerosol Characterization II</b></p>	
10:40am - 11:00am	<p><b>IJCS&amp;T, Special Issue of Dust Control</b>  <i>Wanjie Wang, Managing Editor of IJCS&amp;T</i></p>	
11:00am - 11:20am	<p><b>Characterization of Mine Dust Using Automate SEM Techniques</b>  <i>Gary Casuccio, Senior Scientist &amp; Vice President RJ Lee Group</i></p>	
11:20am - 11:40am	<p><b>Characterization of nano-to-micron sized respirable coal dust: Particle surface alteration and the health impact</b>  <i>Shimin Liu, Associate Professor, Penn State University</i></p>	
11:40am - 12:00pm	<p><b>Coal Dust and Moisture Interactions and Its Implication on Water Uptake and Dust Control</b>  <i>Sikandar Azam, Graduate Researcher and Teaching Assistant at Penn State University</i></p>	
10:40am - 12:00am	<p><b>Technical Session 6 Best Practices for Dust Control II</b></p>	
10:40am - 11:00am	<p><b>Investigation of Dust Spatial Distribution at Longwall Panel</b>  <i>Botao Qin, Professor, China University of Mining and Technology</i></p>	
11:00am - 11:20am	<p><b>Study on the Law of Dust Pollution and High Efficient Control Technology in Fully mechanized Excavation Face of Coal Mine</b>  <i>Wen Nie, Professor, Shandong University of Science and Technology</i></p>	

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11:20am - 11:40am	<p><b>Shot-Crete Technology and Dust Control: Research and Application</b>  <i>Lianjun Chen, Professor, Shandong University of Science and Technology</i></p>	
11:40am - 12:00pm	<p><b>Ignition Behavior of Mental Dust</b>  <i>Chunmiao Yuan, Associate Professor, Northeastern University, China</i></p>	
12:00Pm - 1:00pm	<b>Lunch Break</b>	
1:00pm - 3:00pm	<b>Technical Session 7 Best Practices for Dust Control III</b>	
1:00pm - 1:20pm	<p><b>Wireless Measurement of Respirable Dust Using Inexpensive Sensors in Surface Mines</b>  <i>William A. Groves, Associate Prosser, Penn State University</i></p>	
1:20pm - 1:40pm	<p><b>Development of a Roof Bolter Drilling Control Process to Reduce the Generation of Respirable Dust</b>  <i>Hua Jiang, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Pittsburgh</i></p>	
1:40pm - 2:00pm	<p><b>Mine Dust Exposure Monitoring and Control of the Future</b>  <i>Belle Bharath, Technical Manager of Anglo American Group's Coal Business; Adjunct Professor of Mining Engineering at the University of New South Wales, University of Queensland and the University of Pretoria</i></p>	
2:00pm - 2:20pm	<p><b>Calibration Of Low-Cost PM Sensors for Coal Dust Monitoring</b>  <i>Guang Xu, Associate Professor, Missouri University of Science and Technology</i></p>	
2:20pm - 2:40pm	<p><b>An Investigation of RCMD and RCS in the U.S. Underground and Surface Coal Mines</b>  <i>Younes Shekarian, Graduate Student, Penn State University</i></p>	

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2:40pm - 3:00pm	TBA	
3:00pm - 3:30pm	Break/ Breakroom Networking	
3:30pm - 5:30pm	<b>Roundtable Discussion</b>	
	<p><b>Location (in-person):</b> <i>Room C213, Energy Institute</i></p> <p><b>Participants:</b></p> <ul style="list-style-type: none"> <li>• <i>Joseph Sbaffoni, Retired PA DEPA</i></li> <li>• <i>Barb Arnold, Professor in Practice, Penn State</i></li> <li>• <i>Shimin Liu, Associate Professor, Penn State</i></li> <li>• <i>William Groves, Associate Professor, Penn State</i></li> <li>• <i>Randy Reed, NIOSH</i></li> <li>• <i>Sam Baker, Rosebud Mining</i></li> <li>• <i>Teresa L. Barone, NIOSH</i></li> <li>• <i>William Hudak, Pennsylvania Department of Environmental Protection</i></li> <li>• <i>Tom Richard, Director of IEE, Penny State</i></li> <li>• <i>Cheryl Spellman, Pennsy Supply Inc</i></li> <li>• <i>Belle Bharath, Technical Manager of Anglo American Group's Coal Business</i></li> </ul>	