

Monday, November 15, 2021 (EST)

8:00am - 8:10am	Opening General Session <ul style="list-style-type: none"> Welcome/Chapter Introductions <i>Dr. Liang Yuan and Conference Chair Shimin Liu</i> Replay: https://psu.mediaspace.kaltura.com/media/Opening+General+Session/1_kvfdne3	
8:10am - 10:30am	Keynote Session <i>Chaired by Dr. Shimin Liu, Penn State</i>	
8:10am - 8:40am	Occupational Health Challenges in China's Mining industry and Countermeasures <i>Liang Yuan, Professor, Academician of Chinese Academy of Engineering, President of Anhui University of Science and Technology</i> Replay: https://psu.mediaspace.kaltura.com/media/Liang+Yuan/1_hjklkx4r	
8:40am - 9:20am	Mine Dust Research Gaps Based on NASEM Report and Lessons Learned for Dust Characterization <i>Emily Sarver, Associate Professor, Virginia Tech</i> Replay: https://psu.mediaspace.kaltura.com/media/Emily_Sarver_ISMDAR_Sarver/1_k8kpfblw	
9:20am - 10:00 am	Characterization of Particulates in Australian Mines <i>Nikky LaBranche, Researcher, University of Queensland</i> Replay: https://psu.mediaspace.kaltura.com/media/ISMDAR+2021+Nikky+LaBranche/1_jxrnitvm	
10:00am - 10:30 am	Prevalence of Pneumoconiosis and Counter Measures in China Coal Mines <i>Jun Ma, Professor, Secretary General of China Occupational Safety & Health Association (COSHA)</i> Replay: https://psu.mediaspace.kaltura.com/media/Jun+Ma/1_ikidu5un	
10:30am - 10:50am	Break/ Breakroom Networking	
10:50am - 12:10pm	Technical Session 1 Dust and Aerosol Characterization I <i>Chaired by Dr. Long Fan, Penn State</i>	

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<p>10:50am - 11:10am</p>	<p>Segregation Of Respirable Dust for Chemical and Toxicological Analyses <i>Teresa L. Barone, Chemical Engineer at Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Pittsburgh</i> Replay: https://psu.mediaspace.kaltura.com/media/Teresa_Barone/1_klyuixzm</p>	
<p>11:10am - 11:30am</p>	<p>Toxicity of Respirable Coal Mine Dust: Study of Metals Dissolution of RCMD in Lung Fluids <i>Vanessa Salinas, Graduate Student, New Mexico Tech University</i> Replay: https://psu.mediaspace.kaltura.com/media/Vanessa_Salinas/1_z4bs7f5r</p>	
<p>11:30am - 11:50am</p>	<p>Air Quality Monitor and Control in Underground Coal Mines- A Case Study <i>Sheng Xue, Professor, Anhui University of Science and Technology</i> Replay: https://psu.mediaspace.kaltura.com/media/Sheng+Xue+%28%29/1_5j6z1as9</p>	
<p>11:50am - 12:10 pm</p>	<p>Study on Acceleration Characteristics of Compound Flame of Gas / Coal Dust Explosion <i>Pei Bei, Professor, Henan Polytechnic University</i> Replay: https://psu.mediaspace.kaltura.com/media/Bei_Pei/1_9nent5hl</p>	
<p>10:50am - 12:10pm</p>	<p>Technical Session 2 Best Practices for Dust Control I <i>Chaired by Dr. Ang Liu, Penn State</i></p>	
<p>10:50am - 11:10am</p>	<p>Status investigation of the occupational hazards of industrial dust and the institutions of dust control in China <i>Longzhe Jin, Professor, University of Science and Technology Beijing</i> Replay: https://psu.mediaspace.kaltura.com/media/Longzhe+Jin/1_c2bidjn6</p>	
<p>11:10am - 11:30am</p>	<p>Prevention and Control Technology of Typical Dust Sources in Metal Mines <i>Gang Li, Professor and Chief Engineer, SINOSTEEL</i> Replay: https://psu.mediaspace.kaltura.com/media/Gang+Li/1_6qj4bjqn</p>	
<p>11:30am - 11:50am</p>	<p>Experimental Investigation on Highly Efficient Collection and Cleaning for Fine Coal Dust Particles by Dry-Wet Mixed Chemical Method <i>Gang Zhou, Professor, Shandong University of Science and Technology</i></p>	

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	<p>Replay: https://psu.mediaspace.kaltura.com/media/Gang+Zhou/1_1s6vn1h0</p>	
11:50am - 12:10pm	<p>Water Injection into Coal Seam and Its Implication on Dust Control <i>Yanbin Yu, Associate Professor, Shandong University of Science and Technology</i> Replay: https://psu.mediaspace.kaltura.com/media/Yanbin+Yu/1_hbnudexl</p>	
12:10pm - 1:00pm	Lunch Break	
1:00pm - 2:40pm	<p>Technical Session 3 Dust and Aerosol Health Effects and Regulatory Policy <i>Chaired by Dr. Jiang Hua, NIOSH</i></p>	
1:00pm - 1:20pm	<p>Lung-Based Exosomal Inhibition Mediates Systemic Impacts Following Mine-Site Derived Particulate Matter Exposure <i>Katherine Zychowski, Assistant Professor, The University of New Mexico</i> Replay: https://psu.mediaspace.kaltura.com/media/Katherine+Zychowski/1_qlx0tllc</p>	
1:20pm - 1:40pm	<p>Improving Self-Efficacy in Care of Miners by Multidisciplinary Groups Via Virtual Community Partnerships <i>Kevin Vlahovich, MD, The University of New Mexico</i> Replay: https://psu.mediaspace.kaltura.com/media/Kevin.Vlahovich/1_xihgiel3</p>	
1:40pm - 2:00pm	<p>Particulate Matter: Fine and Ultrafine - How Emerging Data on Engineered Nanomaterials May Change How We Regulate Worker Exposures to Dust <i>Jeremy M. Gernand, Associate Professor, Penn State University</i> Replay: https://psu.mediaspace.kaltura.com/media/Jeremy_Gernand/1_8pd2vbdn</p>	
2:00pm - 2:20pm	<p>Toxicity of the Respirable Dust - An Overview <i>Eskanlou Amir, Graduate Student, Penn State University</i> Replay: https://psu.mediaspace.kaltura.com/media/Eskanlou+Amir/1_8bs1dpy2</p>	
2:20pm - 2:40pm	<p>An Investigation of RCMD and RCS in the U.S. Underground and Surface Coal Mines <i>Elham Rahimi, Graduate Student, Penn State University</i> Replay: https://psu.mediaspace.kaltura.com/media/Rahimi%2C+Elham/1_ng4942a9</p>	

2:40pm - 3:00pm	Break/ Breakroom Networking	
3:00pm - 5:00pm	Technical Session 4 Dust Generation and Transport <i>Chaired by Guang Xu, Missouri S&T</i>	
3:00pm - 3:20pm	Dust in Mining Environment, Control Standards, and Research on Drilling Dust <i>Yi Luo, Professor, West Virginia University</i> Replay: NA	
3:20pm - 3:40pm	Development of a Roof Bolter Drilling Control Process to Reduce the Generation of Respirable Dust <i>Hua Jiang, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, Pittsburgh</i> Replay: https://psu.mediaspace.kaltura.com/media/Hua+Jiang/1_8g06zvj5	
3:40pm - 4:00pm	Airborne Dust Generation and Dispersion Due to Remote LHD Mucking in An Open Stope of A Mechanized Underground Metalliferous Mine <i>Paluchamy B., Indian Institute of Technology (Indian School of Mines) Dhanbad</i> Replay: https://psu.mediaspace.kaltura.com/media/Paluchamy_B/1_ofqgkno	
4:00pm - 4:20pm	The Fate of Inhaled Uranium-Containing Dust Upon Clearance to Human GI Tract <i>Milton Chandra Das, Graduate Student, New Mexico Institute of Mining and Technology</i> Replay: https://psu.mediaspace.kaltura.com/media/Milton_Das/1_wh26cndI	
4:20pm - 4:40pm	Simulation Study on Multi-phase Coupling Law of Airflow-Droplet-Dust in Fully Mechanized Mining Face <i>Haiming Yu, Lecture, Shandong University of Science and Technology</i> Replay: https://psu.mediaspace.kaltura.com/media/HAIMING+YU/1_xc0o7phi	
4:40pm - 5:00pm	A Systematic Review of Occupational Exposure to Respirable Coal Mine Dust (RCMD) in the Mining Industry <i>Younes Shekarian, Graduate Student, Penn State University</i> Replay: https://psu.mediaspace.kaltura.com/media/Younes_Shekarian/1_a3frvnmA	

Tuesday, November 16, 2021 (EST)

8:00am - 10:20am	Keynote Session <i>Chaired by Dr. Shimin Liu, Penn State</i>	
8:00am - 8:30am	Dust Control Theory and Technical Equipment System of Difficult Wetting Coal Seam in Mining Face <i>Weimin Cheng, Professor, Shandong University of Science and Technology</i> Replay: https://psu.mediaspace.kaltura.com/media/Weimin+Cheng/1_xy9h70nx	
8:30am - 9:10am	Overview of Respirable Crystalline Silica (RCS) Air Sampling and Laboratory Analysis <i>Keith Rickabaugh, CIH, Technical Director at RJ Lee Group</i> Replay: https://psu.mediaspace.kaltura.com/media/Keith+Rickabaugh/1_ileey0iv	
9:10am - 9:50am	NIOSH Mining Research for Respirable Coal and Silica Dust <i>Randy Reed, Office of Mine Safety and Health Research, NIOSH</i> Replay: https://psu.mediaspace.kaltura.com/media/Randy_Reed/1_zpnpb2r2	
9:50am - 10:20am	Health hazards and precise prevention of industrial silica dust <i>Weihong Chen, Professor, Huazhong University of Science and Technology</i> Replay: https://psu.mediaspace.kaltura.com/media/Weihong+Chen/1_pe1uo0kf	
10:20am - 10:40am	Break/ Breakroom Networking	
10:40am - 12:00pm	Technical Session 5 Dust and Aerosol Characterization II <i>Chaired by Dr. Long Fan, Penn State</i>	
10:40am - 11:00am	Study on the Dust Control Technology of Surfactant-Magnetized Water in the Underground Coal Mine <i>Botao Qin, Professor, China University of Mining and Technology</i> Replay: https://psu.mediaspace.kaltura.com/media/Botao+Qin/1_yudfpexj	

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11:00am - 11:20am	<p>Characterization of Mine Dust Using Automate SEM Techniques <i>Gary Casuccio, Senior Scientist & Vice President, RJ Lee Group</i></p> <p>Replay: https://psu.mediaspace.kaltura.com/media/Gary+Casuccio/1_otuepba0</p>	
11:20am - 11:40am	<p>Characterization of Nano-to-Micron Sized Respirable Coal Dust: Particle Surface Alteration and the Health Impact <i>Shimin Liu, Associate Professor, Penn State University</i></p> <p>Replay: https://psu.mediaspace.kaltura.com/media/Shimin_Liu/1_nx4gfs5k</p>	
11:40am - 12:00pm	<p>Introduction of the IJCS&T and Special Issue on Mine Dust Control <i>Wanjie Wang, Managing Editor of IJCS&T</i></p> <p>Replay: https://psu.mediaspace.kaltura.com/media/Wanjie+Wang/1_5ulvw66s</p>	
10:40am - 12:00pm	<p>Technical Session 6 Best Practices for Dust Control II <i>Chaired by Dr. Sekhar Bhattacharyya, Penn State</i></p>	
10:40am - 11:00am	<p>Shot-Crete Technology and Dust Control: Research and Application <i>Lianjun Chen, Professor, Shandong University of Science and Technology</i></p> <p>Replay: https://psu.mediaspace.kaltura.com/media/Lianjun+Chen/1_a6dqkvza</p>	
11:00am - 11:20am	<p>Study on the Law of Dust Pollution and High Efficient Control Technology in Fully mechanized Excavation Face of Coal Mine <i>Wen Nie, Professor, Shandong University of Science and Technology</i></p> <p>Replay: https://psu.mediaspace.kaltura.com/media/Wen+Nie/1_tqz0w4fo</p>	
11:20am - 11:40am	<p>Dust Generation Mechanism During Coal Cutting by Roadheader <i>Hetang Wang, Professor, China University of Mining and Technology</i></p> <p>Replay: https://psu.mediaspace.kaltura.com/media/Hetang+Wang/1_t8mjqu68</p>	
11:40am - 12:00pm	<p>Effects of Solid Inertants on the Dispersion and Deflagration of Combustible Dust Clouds <i>Chunmiao Yuan, Associate Professor, Northeastern University, China</i></p> <p>Replay: https://psu.mediaspace.kaltura.com/media/Chunmiao+Yuan/1_w2rfcf86</p>	

12:00pm - 1:00pm	Lunch Break	
1:00pm - 3:00pm	Technical Session 7 Best Practices for Dust Control III <i>Chaired by Dr. Mohammad Rezaee, Penn State</i>	
1:00pm - 1:20pm	Effectiveness of Filtering Facepiece Respirators and Elastomeric Half-mask Respirators against Nanoparticles <i>Xinjian He, Professor, China University of Mining and Technology, China</i> Replay: https://psu.mediaspace.kaltura.com/media/Xinjian+He/1_mezk3jpa	
1:20pm - 1:40pm	Air Curtain Technology and Equipment for Workplace Dust Control of Unable Enclosed Spaces <i>Xiaochuan Li, Associate Professor, China University and Mining Technology</i> Replay: https://psu.mediaspace.kaltura.com/media/Xiaochuan+Li/1_3crvnc9b	
1:40pm - 2:00pm	Wireless Measurement of Respirable Dust Using Inexpensive Sensors in Surface Mines <i>William A. Groves, Associate Prosser, Penn State University</i> Replay: https://psu.mediaspace.kaltura.com/media/William_Groves/1_scwhog5p	
2:00pm - 2:20pm	Calibration Of Low-Cost PM Sensors for Coal Dust Monitoring <i>Guang Xu, Associate Professor, Missouri University of Science and Technology</i> Replay: https://psu.mediaspace.kaltura.com/media/Guang+Xu/1_pfhmwxf	
2:20pm - 2:40pm	Mine Dust Exposure Monitoring and Control of the Future <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> Replay: NA	
2:40pm - 3:00pm	Resonator-based Wearable Respirable Dust Monitor (WEARDM) for Coal and Silica Dust Monitoring in Underground Mines <i>Igor Paprotny and Dr. Mandana Hajizadehmotlagh, Associate Professor, University of Illinois at Chicago</i> Replay: https://psu.mediaspace.kaltura.com/media/Igor+Paprotny/1_dpna0jyx	



3:00pm - 3:30pm	Break/ Breakroom Networking	
3:30pm - 5:30pm	<p>Roundtable Discussion <i>Chaired by Dr. Barbara Arnold, Penn State</i></p> <p>Replay: https://psu.mediaspace.kaltura.com/media/Roundtable+Discussion/1_0753cjwm</p>	
	<p>Location (in-person): <i>Room C213, Energy Institute</i></p> <p>Participants:</p> <ul style="list-style-type: none"> • <i>Joseph Sbaffoni, JAS Mine Consulting LLC</i> • <i>Barb Arnold, Professor in Practice, Penn State</i> • <i>Shimin Liu, Associate Professor, Penn State</i> • <i>William Groves, Associate Professor, Penn State</i> • <i>Randy Reed, NIOSH</i> • <i>Jake Wells, Rosebud Mining</i> • <i>Teresa L. Barone, NIOSH</i> • <i>William Hudak, Pennsylvania Department of Environmental Protection</i> • <i>Tom Richard, Director of IEE, Penn State</i> • <i>Cheryl Spellman, Pennsy Supply Inc</i> • <i>Belle Bharath, Technical Manager of Anglo American Group's Coal Business</i> • <i>Tim Burgess, JH Fletcher</i> • <i>Garron Ross, JH Fletcher</i> • <i>Greg Hinshaw, JH Fletcher</i> • <i>Guang Xu, Missouri University of Science and Technology</i> • <i>Gary Casuccio, RJ Lee Group</i> • <i>Keith Rickabaugh, RJ Lee Group</i> 	