



# UMI 2008 38TH UNDERWATER MINING INSTITUTE

## Final Program

**17 November 2008 (Monday)**

**WELCOMING RECEPTION AND REGISTRATION**

The Inn at Ole Miss

The University of Mississippi, Oxford MS

8:00 – 9:30 PM

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**18 November 2008 (Tuesday)**

**TECHNICAL SESSION I**

The Inn at Ole Miss

8:30 AM to 6:00 PM

**8:30 WELCOME**

**Call to Order**

Charles L. Morgan

*UMI Program Chair*

**Welcoming Address**

Robin Buchannon

*Assistant Vice Chancellor*

*Office of Research and Sponsored Programs*

*The University of Mississippi*

**Technical Session I Introduction**

Charles L. Morgan



## Presentations

**8:45 The IMMS Code for Environmental Management of Marine Mining:  
Review and Comments**

*Philomene Verlaan*

*University of Hawai'i, USA*

**9:15 An Environmental Impact Assessment of Seafloor Mineral Extraction**

*Samantha Smith*

*Nautilus Minerals Inc., Australia*

**9:45 Environmental Management of a New Minerals  
Frontier**

*Campbell McKenzie*

*Neptune Minerals Plc, Australia*

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**10:15 Break**

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**10:30 Variability in Environmental Characteristics of  
Hydrothermal-Vent Ecosystems: What's at Risk?**

*Cindy Lee Van Dover*

*Duke University, USA*

**11:00 Physiological Ecology and Biodiversity of Animal Life  
around Hydrothermal Vents and Hydrocarbon Seeps**

*Charles Fisher*

*The Pennsylvania State University, USA*

**11:30 Distribution Pattern of Polymetallic Nodules and Associated Megabenthic  
Community**

*Valcana Stoyanova*

*Interoceanmetal Joint Organization, Poland*

**12:00 Platinum and Some Other Trace Metals in Ferromanganese Crusts -- Geochemical  
Models to Explain Contradictions**

*Peter E. Halbach*

*Free University, Germany*

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**12:30 Break for Lunch (buffet in Ballroom)**

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**1:30 Perspective on the Future Supply of Metal from the Oceans**

*Julian Malnic*

*Direct Nickel Pty, Ltd., Australia*

**2:00 Polymetallic Nodules - A New Approach**

*David Heydon*

*Nauru Ocean Resources Inc. and Tonga Offshore Mining Ltd., Australia*

**2:30 Nautilus Minerals - Developing the World's First Deep-water Metalliferous Hard Rock Mine**

*Stephen Rogers*

*Nautilus Minerals, Inc., Australia*

**3:00 Special Presentation**

**Society of Economic Geologists**

*Cornel de Ronde*

*Society of Economic Geologists Distinguished Lecturer for 2008*

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**3:40 Break**

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**4:00 High Sulfidation Submarine Hydrothermal Systems of the Mariana Arc**

*Robert Ditchburn*

*GNS Science, New Zealand*

**4:30 The Geological Setting, Morphology and Physical Properties of Massive Sulfide Deposits: Important Parameters for Future Mining Technology**

*Georgy Cherkashov*

*Institute for Geology and Mineral Resources of the Ocean (VNIIOkeangeologia), Russia*

**5:00 Ore Facies of a New Hydrothermal Massive Sulfide Cluster at 13°31'N, Mid-Atlantic Ridge: First Results**

*Irina Melekestseva*

*Institute of Mineralogy, Urals Russian Academy of Sciences, Russia*

**5:30 Modeling of Chemosynthetic Ecosystem around Methane Seepage and the Application for Hydrothermal Vents**

*Tetsuo Yamazaki*

*Osaka Prefecture University, Japan*

**6:00 Closing Remarks and End of Technical Session I**

*The evening is free for you to explore the historic town of Oxford  
(see conference brochures for Things to Do and Places to Eat).*



**19 November 2008 (Wednesday)**

**TECHNICAL SESSION II**

9:00 AM to 5:30 PM

*(Concurrent with Technical Session II is the Oxford Day Tour for spouses and guests; 9:00 – 3:00 pm)*



**8:30 International Marine Minerals Society: Annual General Membership Meeting**

*Akira Usui, President*

**Presentations**

**9:00 MHC: Buried Treasure or a Threat to Our Species?**

*Anthony Wakefield*

*AW Wakefield, United Kingdom*

**9:30 Technology Solutions for Seafloor Mining off New Zealand**

*Simon McDonald*

*Neptune Minerals Plc, Australia*

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**10:00 Break**

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**10:30 Into the Deep: The Feasibility of Accessing Deep Sea Deposits**

*Henk Van Muijen (Caroline Suykerbuyk, Speaker)*

*MTI Holland, The Netherlands*

**11:00 Ocean Mining Research in China: Its Technical Solutions and Activities**

*Liuhuai Ding*

*Changsha Institute of Mining Research, China*

**11:30 Field Results Using an Electromagnetic Conductivity Sensor for Deep Sea Mineral Exploration**

*Eric Jackson*

*Ocean Floor Geophysics, Canada*

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**12:00 Poster Session and Break for Lunch** (*buffet in Ballroom*)

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**Poster Session and Exhibits**

**Cobalt-rich Manganese Crusts in the Azores Region: Preliminary Results**

*Raquel Pena Costa*

*Task Group for the Extension of the Continental Shelf (EMPEC), Portugal*

**Potential Controls of Sediment Distribution on the Genesis of Seabed Manganese Nodules**

*Kiseong Hyeong (Cheong Kee Park, Speaker)*

*Korea Ocean Research and Development Institute, Korea*

**The Challenges of Making Deep Sea Mining Sustainable**

*Hans Smit*

*Marine and Mineral Projects (Pty) Ltd., South Africa*

**Research Activities by the Marine Environment Survey and Assessment Group in the Research Consortium for Methane Hydrate Resources (MH21 project) in Japan**

*Shunji Sukizaki*

*Marine Biological Research Institute of Japan Co., Ltd., Japan*

**An Integrated Geophysical & Geological Mapping of Deep-sea Cobalt-rich Ferromanganese Crusts: A Case Study at a Seamount of the Federated States of Micronesia, South Pacific**

*Akira Usui*

*Kochi University, Japan*

**Exhibits:** Benthic Geotech (Peter Williamson, CEO)  
IHC Merwede (Jan Van Bloois and Caroline Suykerbuyk)  
InterRidge (Maurice Tivey)

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**1:30 Continued Research Efforts for the Development of Deep-sea Mining Equipment**

*Bart Hogeweg*

*MTI Holland, The Netherlands*

**2:00 Submarine Gravity Surveys Using Airborne Gravimeter Technology**

*Peter Kowalczyk*

*Ocean Floor Geophysics, Canada*

### *Special Session: Mississippi Mineral Resources Institute*

**2:30 Acquisition of High Resolution Bathymetric and Sub-Bottom Data Using an Autonomous Undersea Vehicle (AUV)**

*Vernon Asper*

*The University of Southern Mississippi, USA*

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**3:00 Break**

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**3:30 Osmosampler: A Salt-Gradient Powered Probe Device to Provide Temporal Records of Pore Fluid Concentrations in the Deep Seabed**

*Jeff Chanton*

*Florida State University, USA*

**4:00 A Hybrid Deep Water ROV for Sea Floor Operations from Small Vessels**

*Paul Higley*

*Specialty Devices, Inc., USA*

**4:30 Role of Microbe-Mineral Interactions in Seafloor Gas Hydrate Accumulations**

*Rudy Rogers*

*Mississippi State University, USA*

**5:00 Importance of Gas Hydrate Storage in Recovering Hydrocarbon Gases from Seafloors**

*Rudy Rogers*

*Mississippi State University, USA*

**5:30 Closing Remarks and End of Technical Sessions**

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## **19 November 2008 (Wednesday)**

### **UMI BANQUET**

Taylor Grocery

6:30 PM to 8:30 PM

**6:00 UMI Banquet at the Taylor Grocery**

*Freshen up and get on the bus—we're going to Taylor, MS for the "best catfish in the world," Southern music, and other charming surprises.*

*Dress casual, but be prepared—it might get chilly.*



**9:00 Return to Oxford and Adjournment of the 38<sup>th</sup> UMI**

*Final Program (as of 11/07/08) 6*

*UMI 2008 · The University of Mississippi · 17-21 November 2008*



20 – 21 November 2008 (Thursday 7 AM through Friday 9 PM)

**FIELD TOUR OF THE MISSISSIPPI DELTA REGION**

This required pre-registration at additional cost.

Cline Tours coach leaves at 7 AM from the lobby of The Inn at Ole Miss.

Emily Woolsey (and Brian), Leader

Georgy Cherkashov

Sang-Bum Chi

Pamela De Mark

Liuhuai Ding

Robert Ditchburn

Yuqing Gao

Woong-Seo Kim

Cheong-Kee Park

Simon McDonald

Campbell McKenzie

Irina Melekestseva

Charles and Karynne Morgan

Nii Odunton

Bhaskar Rao

Hans Smit

Valcana Stoyanova

Tony and Pauline Wakefield

John Wiltshire

Hongyun Wu

Tetsuo Yamazaki

Bus Driver

