



# 28<sup>th</sup> SOMP Annual Meeting and Conference

TORINO, ITALY

JULY 3-6, 2017



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## MESSAGE FROM THE ORGANIZING COMMITTEE



### *Welcome to Torino!*

It is a great honor for me to host this meeting for the first time in Turin, and for the second time in Italy, after many years! I want to write this brief greeting with my heart and thank all those who, with their great help and enthusiasm, have made this important meeting possible.

First of all I want to thank our Secretary General, Bruce Hebblewhite, for his precious and constant help and indispensable suggestions during the last months; in addition, Oliver Langefeld, Serkan Saydam, Emily Sarver and Jürgen Kretschmann have done an excellent job in organizing the sessions, which present this year some novelties in terms of components and initiatives, also thanks to the contribution of Elisabeth Clausen.

I add that I would not be here without the support of Vlad Kecojevic, my friend for years, who not only contributed to my entry to SOMP in 2010, but has been trusting me over these years and has always given me extremely useful suggestions; thanks especially to him, I am now part of this great Society, which is enriched every year by so many new members from around the world.

I hope for a successful outcome of the meeting, though... we will only discover in the end if it has given a contribution to our small world: the world of Mining Professors!

I'm sure all of us are excited to face new challenges, and I am confident that, with the help of all of you, we will spend some days working together, to produce ideas, to cooperate in innovative research scenarios, to analyze the present and to evaluate the future of education, to foster the enhancement of knowledge transfer, to attract new members, especially from developing countries, to highlight progress over the past years, to understand members' needs with respect to teaching, research and professional development.

As Mining Professors, I believe we have the duty to help our students and our young colleagues to invent the future, a future appropriate to their expectations and, why not, to their dreams!

Then, I am really happy to host the 28th SOMP Annual Meeting and Conference in Torino! I'd like to thank you in advance for your important contribution and involvement in our future activities and I'm confident all of you will continue to support SOMP; waiting to meet you and to share so many initiatives, let's continue to support Mining and the continuing need of mankind for raw materials!

***Best regards / Mit freundlichen Grüßen und Glückauf***

Marilena Cardu

Associate Professor at DIATI Environment,  
Land and Infrastructures Department, Politecnico di Torino



## COMMITTEES

### National Organizing Committee

Prof. Marilena Cardu (CHAIR), *DIATI Politecnico di Torino - Italy*

Prof. Gian Andrea Blengini, *DIATI Politecnico di Torino - Italy*

Prof. Claudio Oggeri, *DIATI Politecnico di Torino - Italy*

Prof. Pierpaolo Oreste, *DIATI Politecnico di Torino - Italy*

Prof. Deborah Shields, *DIATI Politecnico di Torino - Italy • Colorado State University - USA*

### International Organizing Committee

Prof. Zach Agioutantis, *University of Kentucky - USA*

Prof. Mario Cedron, *Pontificia Universidad Católica del Perú*

Prof. Peter Dowd, *University of Adelaide - Australia*

Prof. Bruce Hebblewhite, *University of New South Wales - Australia*

Prof. Michael Karmis, *Virginia Tech - USA*

Prof. Vlad Kecojevic, *West Virginia University - USA*

Prof. Jürgen Kretschmann, *TH Georg Agricola - Germany*

Prof. Zhongxue Li, *University of Science & Technology Beijing - China*

Prof. Pinyo Meechumna, *Chulalongkorn University - Thailand*

Dr. Ludger Rattman, *TH Georg Agricola - Germany*

Prof. Oscar Jaime Restrepo Baena, *Universidad Nacional de Colombia - Colombia*

Prof. Ronny Webber Youngman, *University of Pretoria - South Africa*



## PROGRAM

### Sunday, July 2

**10:00** Strategic Planning Committee.

### Monday, July 3

**12:00 - 18:00** Attendees' registration.

**12:30 - 14:30** Council Meeting.

**14:30 - 17:30** Education Committee Meeting.

**14:30 - 17:30** Research and Industry Committee Meeting.

**14:30 - 17:30** Capacity Building Committee Meeting.

**14:30 - 17:30** Members Development Committee Meeting.

**19:00 - 21:00** *Welcome cocktail reception  
(at the Valentino Castle, see details at page 13)*

### Tuesday, July 4

**7:30** Attendees' registration.

**8:30** **Welcome**  
*M. Cardu • 2017-2017 SOMP President, Politecnico di Torino, Italy*

**8:45** **Welcome address**  
*B. Chiaia • Vice Rector - Internationalization, Politecnico di Torino, Italy*

**9:00** **Key-note Address**  
Past and present mining activity in Italy in the European framework.  
*V. Badino • Emeritus SOMP Member*





**9:30**      **SOMP Business session**  
*B. Hebblewhite • SOMP Secretary-General*

**10:30**      *Coffee break*

### EDUCATION SESSION

**10:50**      **Educational standards in Mining Engineering**

**Introduction:** *O. Langefeld*

**Statement and discussion:** *J. Kretschmann, L. Rattmann, D. Shields, O. Langefeld*

**11:50**      **E-learning • Oral communications (and discussion)**

- A virtual mining objects exhibition.  
*L. Rattmann, S. Döppenschmitt, M. Lukas*
- Experiences with a mining MOOC.  
*S. Hall*
- Computer simulation programs in mine rescue education and training, on the example of student mine rescue teams.  
*H. Mischo, J. F. Brune*

**13:00**      *Standing buffet lunch*

**14:00**      **Creative teaching • Oral communications (and discussion)**

- Implementation of CDIO in mining engineering education.  
*E. Clausen, C. Edelbro, J. Herrera, K. Edström, K. Jonsson*
- Creative teaching and learning in mining education.  
*E. Posada, O. J. Restrepo-Baena*
- Addressing social risk through development of intercultural competence in the mining curriculum: a Canadian case study.  
*L. K. Daneshmend, E. A. Johnson*

**15:20**      *Coffee break*



**15:50 Sustainability in Mining Education**  
***Oral communications (and discussion)***

- Linking sustainability and underground mining course development in the master mining engineering.  
*A. Binder, O. Langefeld, E. Clausen, A. Hutwalker*
- Student membership as an element to bolster mining engineering education and develop essential skills for future mining engineers.  
*D. J. Carvajal, J. Kretschmann*

**16:50 Tim Shaw Award.** Presentation by recipient plus questions/discussion.

**20:00 Dinner**  
*(at Fratelli La Cozza Restaurant, see details at page 13)*

**Wednesday, July 5**

**RESEARCH AND INDUSTRY SESSION**

**8:30 Introductory remarks**

Raw Materials Information System 2.0 and EU Raw Material Policy  
*C. Ciupagea, D. Pennington • European Commission DG JRC, Land Resources Unit*

**9:15 Oral communications (and discussion)**

- Safety in confined underground space. Proximity detection in no-go-zones.  
*N. A. Sifferlinger, P. Moser*
- A review of misleading methods and biased practices in evaluating the feasibility of rare earth mining projects  
*G. Barakos, H. Mischo*
- Ore-reserve and labour planning in underground narrow reef mines.  
*L. D. Meyer*
- Socio-technical effects and tactics on work safety in China.  
*X. Q. He, Z. X. Li, L. Song, Z. L. Li*

**10:30 Coffee break**

**10:50 Mines of the Future Project**

Introduction. *S. Saydam*

Operational efficiency. *S. Saydam*

Sustainable mining practices. *M. Karmis*

Novel mining systems. *B. Hebblewhite*

Research. *S. Saydam*

Education. *B. Hebblewhite*

**11:35 Panel Discussion** on future mining research and education directions.

*Facilitated by S. Saydam*

*Panelists: G. A. Blengini, M. Cedron, R. Mitra, J. Seccatore*

**12:50 Standing buffet lunch**

**13:30 Poster session**

- Life cycle based evaluation and internalization of externalities associated with rare earths exploitation at Bayan Obo.  
*Z. Li, B. Zhou, Y. Zhao*
- Optimisation of energy consumption in Namibia Skorpion Zinc mines.  
A case study.  
*N. Nolten, T. Hollenberg*
- Geomechanical mine design at underground diamond mines.  
*D. B. Apel, M. Sepehri*
- Mining, geotechnical and environmental engineering education in Croatia.  
Historical overview and future challenges.  
*B. Kovačević Zelić, G. Bedeković, A. Jaguljnjak-Lazarević, P. Hrženjak, I. Sobota*
- Current projects of the Research Institute of Post-Mining at TH Georg Agricola University.  
*M. Hegemann, P. Goerke-Mallet*
- The role of Humanitarian Engineering in mining engineering education.  
*D. J. Carvajal Gomez, J. Lucena, J. Smith*



### MEMBERS DEVELOPMENT SESSION

**14:00**    **Introductory remarks**

Review of committee activities and progress over past year.

*F. Nejad Rashidi*

**14:15**    **Key-note lecture**

External review for academic promotion and tenure - an insight in the process.

*V. Kecojevic*

**14:50**    **Panel discussion**

Faculty development-perspectives and experiences of junior faculty.

*D. Shields*

*Panelists: A. Binder, A. Brickey, V. Karu, N. Nguyen*

**15:50**    **Coffee break**

**16:10**    **World Café**

Discussion of members' needs with regard to teaching, research and professional development.

*E. Clausen*

**20:00**    **Awards dinner**

*(at the National Car Museum, see details at page 13)*

## Thursday, July 6

### CAPACITY BUILDING SESSION

**8:50**    **Introductory remarks**

Committee work, next planned regional meetings.

*J. Kretschmann*

**9:05**    **Oral communications (and discussion)**

- The system of training of mining engineers in Russia.

*V. L. Petrov*



- Support from society of mining professors for enhancement of knowledge transfer in Southeast Asia.

*J. Kretschmann, D. Laurence, N. Nguyen*

- A perspective on the status and future direction of the department of mining and process engineering in Namibia.

*H. Musiyarira, J. Ralston, D. Tesh, G. Dzinomwa*

- Integral education in mining.

*M. Cedron*

**10:45**

**Coffee break**

**11:05**

### **Panel discussion**

How can SOMP be more attractive for new members, especially from developing countries?

*H. Musiyarira, H. Mischo, N. Nguyen*

**11:40**

The future role of SOMP in the SME.

*M. Karmis, B. Hebblewhite*

**12:00**

### **Closing Ceremony**





## INFORMATION

### REGISTRATION FEES

#### Standard fee

SOMP Members: € 800,00

Retired/Emeritus SOMP Members: € 650,00

Junior SOMP Members: € 650,00

#### Early registration fee *(by April 21, 2017):*

SOMP Members: € 750,00

Retired/Emeritus SOMP Members: € 600,00

Junior SOMP Members: € 600,00

*The registration fees include:*

- access to all scientific sessions;
- conference kit;
- welcome cocktail reception *(July 3)*;
- conference dinner *(July 4)*;
- awards dinner *(July 5)*;
- coffee breaks and buffet lunches as scheduled in the conference program.

#### Accompanying persons

Full programme's registration fee: € 390,00

*The registration fee includes:*

- welcome cocktail reception;
- conference dinner;
- awards dinner;
- one full-day guided city tour including lunch
- one half-day guided city tour

*All fees are Italian VAT 22% included.*



### Cancellation policy

- There will be no penalty for registration cancellations received 90 days before the first day of the conference. The full amount paid minus a processing fee € 20,00 and wire transfer or credit card costs will be refunded.
- A cancellation fee of 50% of the full registration fee plus a processing fee (€ 20,00) and wire transfer or credit card costs will be applied for cancellations received between 89 to 45 days before the first day of the conference.
- A cancellation fee of 75% of the full registration fee plus a processing fee (€ 20,00) and wire transfer or credit card costs will be applied for cancellations received between 44 to 20 days before the first day of the conference.
- No refund will be issued for cancellations received less than 20 days before the first day of the conference.

All cancellations must be sent in writing via e-mail to the conference secretariat.

Cancellation confirmation will be sent within one week.

The conference organising committee and secretariat are not responsible for problems beyond our control such as weather conditions, public order issues, strikes, etc.

No refunds will be given in these situations. No reimbursement will be made for late arrival, unused services, unattended events or early departure from the congress.

The final decision on refunds rests with the SOMP conference organizers.

All refunds will be made within 30 days after the conference ending.

When you register for the conference, you will be confirming that you have reviewed and understood this conference registration refund policy.





### VENUE

The SOMP conference will be held at the 4-star hotel NH Santo Stefano (*via Porta Palatina 19*).

### ORGANIZING SECRETARIAT DESK

Pre-registered participants can collect their conference kit at the secretariat desk located close to the conference room.

Secretariat opening times will be as follows:

- **Monday, July 3:** 12:00-18:00
- **Tuesday, July 4:** 7:30-18:00
- **Wednesday, July 5:** 8:00-18:00
- **Thursday, July 6:** 8:00-13:00

### NAME BADGE

All regularly enrolled attendees will be given a personal name badge.

You are kindly required to wear your identification badge all over the conference.

Access to conference sessions and refreshments will be limited to badge holders.

### AV EQUIPMENT

The conference room is equipped with videoprojector and PC.

Presenters are kindly required to hand in their presentations (PowerPoint) on USB stick at the slide centre at least one hour before presentation.

For any further technical needs please contact the AV staff or the secretariat desk staff in due time.

### REFRESHMENTS

Coffee breaks and lunches will be served in the hotel catering area.

### TOURIST INFORMATION

An information desk of the local tourist bureau Turismo Torino will be located in the hotel with the following opening times:

- **July 3:** 14:00-18:00
- **July 4:** 10:00-16:00

The main city tourist information points are located in the city centre (Piazza Castello and Piazza Carlo Felice).

Contact centre: 011 535181 • Opening times - from Monday to Sunday: from 9:00 to 18:00.



## SOCIAL EVENTS

### Welcome cocktail reception

**Monday, July 3 - 19:00**

Venue: Valentino Castle (viale Mattioli 39).

Bus shuttle service will be provided (*departure from the conference venue at 18:30*).

### Conference dinner

**Tuesday, July 4 - 20:00**

Venue: Fratelli La Cozza Restaurant (corso Regio Parco 39).

Bus shuttle service will be provided (*departure from the conference venue at 19:30*).

### Awards dinner

**Wednesday, July 5 - 20:00 • (visit to the Museum as of 19:00)**

Venue: National Car Museum (corso Unità d'Italia 40).

Bus shuttle service will be provided (*departure from the hotel at 18:30*).

Free visit to the Museum will be granted to participants.

**Access to all events will be limited to regularly enrolled attendees.  
Please do not forget to wear your personal name badge.**

## ACCOMPANYING PERSONS' PROGRAM

Regularly enrolled accompanying persons are kindly required to collect their conference kit at the registration desk.

Accompanying persons' program will include:

- Welcome cocktail reception, July 3
- Conference dinner, July 4
- Awards dinner, July 5
- One full-day city tours
- One half-full-day city tours

Onsite requests of participation will be subject to availability.

For more information please apply to the registration desk.

## POST-CONFERENCE TOUR

**CARRARA MARBLE QUARRIES • TUSCANY AND THE CINQUE TERRE**

**July 6 - July 9, 2017**

Participation limited to ticket holders.

For more information, please apply to the secretariat desk.

## TURIN MAP

**1**

**Conference venue**

**NH Santo Stefano**

*Via Porta Palatina 19*

**2**

**Welcome cocktail reception**

**Valentino Castle**

*Viale Mattioli 39*

**3**

**Conference dinner**

**Frattelli La Cozza Restaurant**

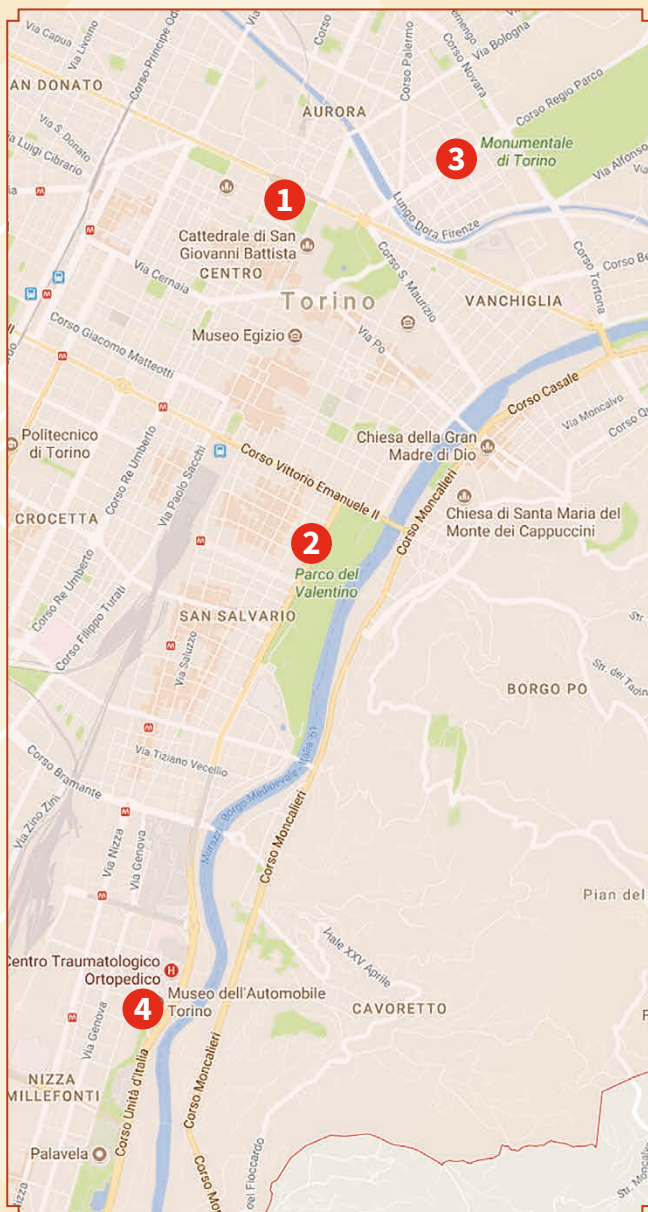
*Corso Regio Parco 39*

**4**

**Awards dinner**

**National Car Museum**

*Corso Unità d'Italia 40*







Welcome  
to Torino

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ORGANIZING SECRETARIAT

*We are*  
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