

GENOA, ITALY
March, 19th - 21st, 2025

Save the date! 



International Forum on
**RESCUE in
DIFFICULT
ENVIRONMENT**

*New Advances in Mountain, Sea and Space Rescue. A
new approach against the consequences of climate change*

Preliminary Program

with patronage of



UNIVERSITÀ DEGLI STUDI
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IHELP

International Climbing and Mountaineering Federation
UNION INTERNATIONALE DES ASSOCIATIONS D'ALPINISME



UIAA



ISMM
International Society
for Mountain Medicine

Dear Colleagues and Esteemed Participants,

*It is with great enthusiasm and pleasure that we extend to you a warm invitation to the International Forum on "**RESCUE in DIFFICULT ENVIRONMENT: New Advances in Mountain, Sea and Space Rescue**". This congress, taking place in **Genoa, Italy from March 19th to 21st, 2025**, aims to foster innovative approaches and solutions in the field of rescue operations, particularly in the face of the ever-growing challenges posed by climate change.*

Our forum brings together leading experts, researchers, and practitioners from around the globe to share their insights and advancements in mountain, sea, and space rescue missions with a specific interest in the healthcare aspects of rescue operations. This event provides a unique platform for interdisciplinary collaboration, where new ideas and cutting-edge technologies will be discussed to enhance our collective response capabilities in difficult environments. Additionally, we will delve into the specialized fields of mountain, diving, space, expedition and wilderness medicine.

As we face the consequences of climate change, it is imperative that we adapt and develop new strategies to ensure effective rescue operations. This congress will address critical issues and present pioneering techniques that will shape the future of rescue missions, ensuring safety and resilience in extreme conditions.

We look forward to your active participation and contributions to what promises to be an enlightening and groundbreaking event. Let us unite our efforts to advance the field of rescue operations and make significant strides in protecting lives in the most challenging environments.

Warm regards,

Dr. Luigi Festi

Dr. Federico Emiliano Ghio



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IHELP



Forum Director	Luigi Festi
President	Giacomo Strapazzon, Hermann Brugger, Osvaldo Chiara, Gianfranco Parati, Michael Wanscher
Organizing and Scientific Committee	Federico Emiliano Ghio, Urs Hefti, Lorenza Pratali, George Rodway, Natalie Holzl, Peter Paal, Marika Falla, Simona Mrakic Sposta, Giovanni Vinetti, Vittore Verratti, Stefano Trinchi, Bruna Catuzzo, Francesco Marchiori, Gege Agazzi, Desiree Pantalone, Alessandro Marroni, Simona Berteletti, Mario Milani, Alessandro Bacuzzi, Luca Careno, Massimo Lombardo, Andrea Moscatelli, Luca Careno, Fabrizio Iseni
Organizing Secretariat	N O E M A  Via Orefici 4 - Bologna (Italy) - Ph. +39 051 230385 info@noemacongressi.it - www.noemacongressi.it



FORUM VENUE

Centro Congressi dei Magazzini del Cotone - Porto Antico di Genova

Calata Molo Vecchio n. 15 – Magazzini del Cotone, Modulo 5
CAP 16128, Genova



OFFICIAL LANGUAGES

English, Italian.



REGISTRATION FEES

€ 300 (22% VAT included)



HOW TO REGISTER

On-line on the website: <https://www.noemacongressi.it/en/> from 13th January 2025.

For further information please consult www.rescuedifficultenvironment.it or write an email to info@noemacongressi.it.

FACULTY

Alessandro Alcibiade	Massimo Lombardo
Alessandro Bacuzzi	Andrew Luks
Cristiano Belfiore	Darryl Macias
Simona Berteletti	Alessandro Marroni
Mattia Bixio	Fabrizio Masella
Loredana Bessone	Kyle McLaughlin
Marc Blancher	Hubert Messner
Gerardo Bosco	Pierre Metrailler
Hermann Brugger	Mario Milani
Michele Burlando	Monica Monici
Giulio Carcano	Andrea Moscatelli
Luca Carezzo	Simon Murray
Osvaldo Chiara	Martin Musi
Paolo Comune	Peter Paal
Claudia Dallari	Desiree Pantalone
Angela Donati	Marcelo Parada
Macri Enrico	Gianfranco Parati
Marika Falla	Lorenza Pratali
Stephen Fenton	Chiara Robba
Guido Ferretti	George Rodway
Luigi Festi	Nicola Rotolo
Jean Pierre Fosson	Steve Roy
Lorenzo Gamberini	Katie Russell
Hannes Gatterer	Giovanni Sabatino
Alessandro Geddo	Francesco Sauro
Federico Ghio	Tom Scalea
Tommaso Giacon	Federico Semeraro
Savoca Gianluca	Sven Christjar Skaiaa
Guido Giardini	Niccolò Stomeo
Les Gordon	Giacomo Strapazzon
Peter Hackett	Guenther Sumann
Tamas Haidegger	Marco Tartaglione
Mark Hannaford	Michael Tipton
Frank Hartig	Iztok Tomazin
Wade Hawkins	Luca Tortorolo
Urs Hefti	Sylvain Tosetti
Sharon Henry	Stein Bastian von Tagen-Jordan
Natalie Holzl	Francesca Verginella
Chris Imray	Giovanni Vinetti
Matthias Jacob	Beat Walpoth
Andrew Kirkpatrick	Michael Wanscher
Axel Krieger	David Christopher Weber
Mijel Lofti	Jason Williams

OPENING

13:30	14:30	Registration	
14:30	15:00	Greeting from the authorities	
15:00	16:00	Lectio Magistralis	G. Parati

COLD INJURIES – LESSONS FROM CITIES, MOUNTAINS AND OCEANS

Chairpersons: H. Brugger, L. Gordon, P. Paal



Each lecture: 20 min

Hypothermia from the mountain to the sea	L. Gordon
Frostbites: a “orphan” disease?	C. Imray
Physiology of Cold Water Immersion	M. Tipton
ALS changes in hypothermic patients	F. Semeraro
ECLS in hypothermic patient: Cerebral Prognostication	M. Wanscher
Hypothermia and coagulation	P. Paal
Impact of climate change on human health at high altitude	G. Rodway

18:00	21:00	Wellcome, event with alpinists & special guest
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Lectio Magistralis	H. Brugger
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MOUNTAINS: OLD AND NEW CHALLENGES WITH NEW VISITORS AND CLIMATE CHANGE

Chairpersons: N. Holzl, G. Strapazon, G. Giardini



Each lecture: 20 min

The pioneers of high altitude sickness: a masterful story	P. Hackett
High altitude illnesses	A. Luks
Challenges for patients in the mountains	M. Falla
Search and Rescue at altitude - new ICAR guidelines	K. McLaughlin
Challenges for Athletes in the mountain	H. Gatterer
Avalanches accident: old and new threats	G. Strapazon
Hyperthermia: so important and so underestimated	D. Macias

11.00	11.30	Coffee break
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DIVING MEDICINE FROM BENCH TO BEDSIDE

Chairpersons: A. Marroni, M. Wanscher



Each lecture: 20 min

Keeping people alive during rescue - lessons from other scenarios?	M. Tipton
Biomarkers and cerebral outcome following cardiac arrest/cerebral hypoxia normo-/hypothermia	M. Wanscher
Hyperbaric therapy: new perspectives	G. Bosco
Stress and Circadian Rhythm	T. Giacon
Modern Cave diving rescue technique with limited equipment	F. Hartig
Physiology of water immersion	G. Ferretti

13.30	14.30	Lunch
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WILDERNESS AND SPACE MEDICINE - WHAT TO LEARN FROM THE EXTREMES

Chairpersons: D. Pantalone, B. Walpoth, J.P. Fosson




Each lecture: 20 min

Experience from the Swiss cave diving team GRIMM	Grimm
ESA CAVES: simulating space expeditions in underground environments	L. Bessone
Terra X Cube: when extreme conditions are controlled	G. Vinetti
Fly! Challenges of disability in space	A. Alcibiade
The new frontiers of surgery in space missions: exposome and more	D. Pantalone
Submarine environment and similitude with space environment condition	M. Monici group
Surgical robot and AI in space and on earth	A. Krieger
The marriage of drone delivered resuscitative responses with telementored just in time guidance: 2 + 2 is 64	A. Kirkpatrick/W. Hawkins
Pharmaceuticals At Low Atmospheric Pressure: Implications For Human Space Flight	S. Roy
Wound healing in space experiment (ESA-WHISPER PROJECT, ASI-SUTURE IN SPACE PROJECT)	M. Monici

Trauma care in space: How far the robotic and AI solutions?	T. Haidegger
Extreme Medicine: A global perspective	M. Hannaford

20.00	23.00	<i>Gala Dinner</i>
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 **Day 21/03/2024**

08.30	09.00	Lectio Magistralis	?
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SEA RESCUE: EXPERIENCES FROM ALL OVER THE WORLD

Chairpersons: A. Gratarola, S. Gualandris



Each lecture: 15 min

Brain Trauma Foundation Guidelines for the Management of Traumatic Brain Injury in Austere Environment	C. Robba
Sinistre in Submarine Rescue	Italian Navy 1
Hemorrhagic shock management in the context of special forces operations	Italian Navy 2
Norway Characteristics of helicopter hoist operations with intubated patients - experiences from the RNoAF 330 Squadron	S.C. Skaiaa
When tragedy strikes for the helicopter rescue crew rescuing in extreme environments	S. Murray
Denmark: The Praestoe mass drowning incident, very difficult rescue operation	Steen Kroyer Barnung
Sea Italian Coast-Guard: Organization of SAR	
Lake Italian Coast- Guard: Organization of SAR	

11.00	11.30	<i>Coffee break</i>
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MOUNTAIN RESCUE: EXPERIENCES FROM ALL OVER THE WORLD

Chairpersons: P. Metrailler, M. Milani



Each lecture: 15 min

Rescue experience in Valais region	GRIMM
Valle D'Aosta Rescue Team Experience	P. Comune
Scotland: Challenges for the pilots rescuing in extreme environments	S. Murray
Norway: Operating heavy helicopters in mountain rescue, a presentation of 330 squadrons super long line procedure	S.B. Von Tangen-Jordan

CNSAS 1 Experience between Sea and Mountains	
Bavarian Mountain Rescue Service	M. Jacobs

13:00	14:00	Lunch
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CNSAS 2 Experience	S. Bertelletti
France 1 Rescue experience in Grenoble Region	M. Blancher
Limitations in Mountain Emergency Medicine	G. Sumann
Mountain Rescue in Argentina: A general review of Rescue Organization in the Argentine Andes	M. Parada
Rescues in Aconcagua Provincial Park as a particular example in Andes	M. Lotfi
Andes: Rescue at El Chalten, what challenges?	C. Codo, L. Viamonte
France: ECASC (école d'application de la sécurité civile) in Chamonix, experience on Mont-Blanc	Pascal, G. Strapazzon
Slovenian Rescue Team experience	I. Tomazin
National Park Service Mountain Rescue	D.C. Weber

HELICOPTER RESCUE OPERATION FROM MOUNTAIN TO THE SEA AND BACK: WHAT FUTURE?

Chairpersons: U. Hefti

Round table with short presentation
Closure of the Conference

SESSIONE PARALLELA

 Day 20/03/2024

TRAUMA MANAGEMENT: A COMMON THREAD FROM THE DIFFICULT ENVIRONMENT TO THE HOSPITAL TRAUMA CENTER

Chairpersons: O. Chiara, G. Carcano



Each lecture: 20 min

The Organization of Trauma Network: Between Present and Future	O. Chiara
Hybrid damage control in hybrid room: a new option for a hybrid trauma surgeon	T. Scalea
Strategies in soft tissue injuries in civil and military settings	S. Henry
Thoracic Trauma in Difficult Environment: what are the options?	N. Rotolo
Trauma care in Xtreme conditions - from austere environments to the hospital	N. Holzl

11:00	11.30	<i>Coffee break</i>
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PRE-HOSPITAL EMERGENCY DEPARTMENT ORGANIZATION: WHAT FUTURE?

Chairpersons: C. Coniglio, A. Bacuzzi



Each lecture: 20 min

New technologies in surgery: from the operating room to the extreme environment, what future?	G. Carcano
Management of critically ill patients in austere environment	M. Bixio
Prehospital Blood in Italy state of the art:	M. Tartaglione
The role of prehospital ultrasound in clinical decision making in austere and remote environments	L. Gamberini
Urban environments are extreme environments	C. Belfiore

13.00	14.15	<i>Lunch</i>
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EVENT MEDICINE AND MASS GATHERING IN EXTREME ENVIRONMENT: NEW ORGANIZATIONAL AND CLINICAL APPROACH

Chairpersons: F. Ghio, M. Lombardo, M. Squeo



Each lecture: 20 min

Ski Patrol	F. Ghio
Elite sporting event medical management	M.R. Squeo
World Athletics Label Marathons	L. Carengo
Delivering high quality clinical care during Olympic winter sports	M. Lombardo
Delivering Care during Fiji Eco Challenge	N. Stomeo
High Profile Football games	A. Geddo

15.45	16.00	<i>Coffee break</i>
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EXPEDITION MEDICINE

Chairpersons: D. Macias, M. Musi



Each lecture: 20 min

Expedition Medicine: from Sandia Mountains to Himalaya	D. Macias
The women's expedition to K2: insights for a new approach to high altitudes	L. Pratali
Death on the Nile managing heat stroke during expeditions	N. Stomeo
Expedition Medicine in the Andes, teaching on expedition mode	M. Musi
Expedition Medicine: the viewpoint of the expedition leader	F. Sauro
Expedition Medicine: the viewpoint of the expedition doctor	P. Rubcich (CNSAS)



Day 21/03/2024

PEDIATRIC WILDERNESS MEDICINE: TRAUMA AND EMERGENCY MEDICINE IN REMOTE AREA

Chairpersons: F. Verginella, L. Tortorolo



Each lecture: 20 min

Children at high altitude: what perspectives with climate change?	H. Messner
Developing a Pediatric Urban Search and Rescue Team	A. Moscatelli and VVFF
Child airway management: a hostile environment	A. Wolfer
Utah Pediatric Trauma Network	K. Russell
Mobile pediatric ECMO	A. Moscatelli
Management of a child in difficult environment: what education/training?	M. De Luca
Burns: the first approach in children	A. de Bellis
Pre-hospital locoregional anesthesia in pediatric patients	S. Tosetti

EDUCATION AND TRAINING: A NEW APPROACH FROM THE MOUNTAIN TO THE SEA AND SPACE. ROLE OF DIFFICULT ENVIRONMENT SIMULATION

Chairpersons: L. Festi, L. Carenzo



Each lecture: 15 min

Diploma in Mountain Medicine and Emergency Medicine	J. Williams
Mountain Medicine Course on the Andes	M. Musi
Human Performance and Behaviour training in extreme Environment	A. Donati (ESA)
Cognitive Appraisal in High Stakes Environment	
Simulation for elite providers	L. Carenzo
Putting it all together: the master in mountain emergency medicine	C. Dallari
From CAVES to SPACE: using terrestrial analogues to train astronaut expeditionary behaviour	L. Bessone

Lunch

ORAL PRESENTATION SESSION



Each presentation: 05 min

14.30	15.30	SIMeM, UIAA, ICAR
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15.30		SiMeM Assembly
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This document is constantly updated. Please find the latest version of the program and the registration opening date on our website:

www.rescuedifficultenvironment.it

