



Città di
Ragusa



United Nations
Educational Scientific and
Cultural Organization



UNESCO Chair on Karst Education
University of Nova Gorica in cooperation with
ZRC SAZU Karst Research Institute



ZNANSTVENORAZVITOVNIJ
CENTR



Hyblean Center
of Speleo-Hydrogeological
Research



Università di
CATANIA

DiSTeM
Dipartimento di Scienze
della Terra e del Mare



Università di
PALERMO



Ordine Regionale
Geologi Sicilia



Università degli Studi di TRIESTE



dipartimento
di matematica
e geoscienze



Università di
MESSINA

Man and Karst 2019



International Scientific Conference
June 24th - 26th Ragusa, Italy

PROGRAM & ABSTRACTS



Springer



Cutgana





PROGRAM

MONDAY 24 JUNE

8.00 - Pullman departure to Donnafugata Castle

Donnafugata Castle

8.30 - Registration

9.00 - Welcome of the authorities to the participants

Giuseppe Cassì *Mayor of Ragusa*

Giuseppe Piazza *Commissioner of Libero Consorzio Comunale di Ragusa*

Carmelo Monaco *Director of Dipartimento di Scienze Biologiche, Geologiche e Ambientali
Università degli Studi di Catania*

Giuseppe Collura *President of Ordine Regionale Geologi di Sicilia*

Giovanni Signorello *Director of Cutgana*

Franci Gabrovšek *ZRC SAZU, Karst Research Institute Postojna, Slovenia*

Presentation of the event

Rosario Ruggieri *President of CIRS Ragusa*

Sala degli Stemmi: Open of Sessions

I SESSION: Karst geomorphology

9.45 - **A new on-site experiment to estimate the evaporate dissolution rate:
the real case-study of Quinis (NE Italy).**

Calligaris Chiara, Cucchi Franco, Lenaz Davide, Petrini Riccardo, Forti Paolo, Zini Luca,
Ghezzi Lisa, Busetti Alice, Terribili Luca.

10.00 - **Morphologies of a karst area: from scientific interest to public fruition.**

F. Finocchiaro, M. Fornetti, F. Cucchi.

10.15 - **Combined river paleo-long profile modelling and hanging fluvio-karst
morphologies distribution as a tool for regional analysis of active tectonic deformation.**
Pavano F., Lo Forno G., Paternò G., Romagnoli G., Salerno A., Tortorici G., Catalano S.

10.30 - **The lake depressions of Serradifalco (central-southern sicily):
a geomorphological study of an urbanized karst area.**
Matteo Crucillà, Enrico Curcuruto, Giuliana Madonia

10.45 - **Outlining the principles of carbonate rocks denudation rate
Kupa River catchment case study.**
Ivana Boljat, Josip Terzić, Jasmina Lukač Reberski, Ana Selak

11.00 - **Coffee break**



II SESSION: Geology and karst hazard

- 11.30 - **Neogene - Quaternary evolution of the Hyblean Plateau:
Geological, morphological and Tectonic aspects.**

Romagnoli G., Lo Furno G., Paternò G., Pavano F., Salerno A., Tortorici G., Catalano S.

- 11.45 - **Hazard in the karst areas in Sicily: “Case history” in the plain of Cinisi (Palermo)**
Vincenzo Liguori

- 12.00 - **Main lithotypes employed in the Baroque cities of the Hyblean area: an overview.**
Rosalda Punturo, Eugenio Fazio, Rosanna Maniscalco, Rosolino Cirrincione

- 12.15 - **New evidence of the tectonic inversion in the Hyblean Plateau.**
Catalano S., Lo Furno G., Paternò G., Pavano F., Romagnoli G., Salerno A., Tortorici G.

- 12.30 - **Geoelectric- Resistivity Investigationatation of The Structure of Karst Cavities
in Sidi Al-Hemri Area, SE - Al-Bayda City.**
Saad M. El-Shari

- 12.45 - **Structural effect on Al Coeffiah-Ayn Zayanah groundwater karstic system
in Benghazi plain, al Jabal al Akhdar, NE Libya.**
Fathi M. Salloum, Maher A. El Amawy, Ahmed A. Al Amin, Moftah H. El-Shawaihdi,
Ahmed M. Muftah, Mohammed H. Al Riaydh

- 13.00 - **Geology of the rupestrian town “Sassi di Matera” (Italy), European Capital of Culture 2019.**
Marcello Tropeano, Luisa Sabato, Vincenzo Festa, Claudio I. Casciano, Domenico Chiarella,
Salvatore Gallicchio, Sergio G. Longhitano, Massimo Moretti, Luigi Spalluto

13.15 - Lunch break

III SESSION: Karst hydrogeology and water protection

- 15.00 - **Evaluation of the transfer of pollutants from groundwater body of
“Castelvetrano-Campobello di Mazara Plain” (Trapani - Italy)
to the interconnected lakes of karstic origin “Preola, Murana and Gorghi Tondi”
and estimate of related impacts on their environmental quality status.**
Anna Abita, Virginia Palumbo, Marco Nicolosi, Santino Pellerito, Nunzio Costa.

- 15.15 - **The hydrokarst system of the cave-springs “Oro-Misericordia”
a singolar case-study of pollution in the hyblean Mountains (South-eastern Sicily)**
Rosario Ruggieri

- 15.30 - **Water protection in karst areas: the example of “Vorra Bosco” in Salento (Italy).**
Mazzei M., De Salve F., Parise M., Martellotta M.

- 15.45 - **Quantitative characterization of karst hydrogeological systems:
Challenges and solutions.**
Attila Kovács



16.00 - Epiphreatic flow in Karst Aquifers: Concepts, Models and Field Cases.

Franci Gabrovšek

16.15 - Impacts of multi-pollution sources of groundwater on health and environment in Ras Almingar area, Benghazi-Libya.

Saad K. El Ebaidi, Ahmed M. Muftah and Alriaydh Mohamed.

16.30 - Coffee break

IV SESSION: Caves conservation and Speleology

17.00 - Armenian Karst Project, 2nd phase: karst surveys in the Region of Ijevan and Lori (North-eastern Armenia).

Rosario Ruggieri, Smbat Davtyan, Riccardo Orsini

17.15 - Some new interesting caves opened by man activity in Dinaric karst of Croatia.

Davor Garašić & Mladen Garašić

17.30 - Cerkniško jezero (The Lake of Cerknica) and Kircher's Theory about Hydrophilacia.

Andrej Kranjc

17.45 - Evaluation of the Carrying Capacity of the Monello cave (SE-Sicily): preliminary results.

Cirrincione R., Costanzo S., Tortorici G., Signorello G.

18.00 - Lampenflora

Fabbricatore Alessio

18.15 - Caves, rock shelters and subterranean water systems:

Sites of ritual significance in the highlands of Papua New Guinea.

Henry Dosedla, Natalie Uomini

18.30 - The role of Groundwater and rain waters in karstification of Al Jabal al Akhdar,

Northeast Libya: A Hydrogeochemical Appraisal.

Mohamed S. E. Al Faitouri, Osama A. El Fallah, Hasan El Shaafi,
Fathi M. Salloum, Ahmed M. Muftah

18.45 - Degassing driving crystallization of plagioclase phenocrysts in lava tube stalactites on Mount Etna (Sicily, Italy).

Gabriele Lanzafame, Carmelo Ferlito

19.00 - Clean up the dark - A proposal for a european network for cave cleaning and protection.

Ferdinando Didonna, Francesco Maurano, Bärbel Wogel, Sarah Linders

19.15 - Visit of the Donnafugata Castle

20.15 - Welcome party for CIRS 45th Anniversary Celebration

23.00 - Pullman departure to the Hotels



TUESDAY 25 JUNE

8.00: Pullman departure to Donnafugata Castle

Donnafugata Castle

8.30 - Registration

V SESSION: Protection and fruition of Karst Geosites

8.45 - An extensive chemical, faunistic and microbial monitoring of sulfidic spring in Monte Conca sinkhole.

Salvatore Petralia, Giuseppe Nicolosi, Fiorenzo Fiorenza, Francesco Leone, Maria Anna Messina.

9.00 - 200 years of cave exploration, karstological research and tourism in Škocjan Caves, Slovenia.
Rosana Cerkvenik

9.15 - Habitat maps in karst landscape geoecological assessment – example of Mountainous Croatia.
Nenad Buzjak, Suzana Buzjak, Valerija Butorac

9.30 - Management of caves in geoparks, case studies in Danube Geoparks in GeoTour project.
Martina Stupar

**9.45 - Toward enactment of the British Columbia Cave Protection Act:
a 45-year history of advances and setbacks.**
Paul A. Griffiths, Carolyn L. Ramsey

10.00 - Nature conservation and agriculture in the kras (Slovenia).
Anica Cernatič Gregorič, Astrid Ličen

**10.15 - Hydrological and morphological changes caused by natural breaking of tufa barrier
in Plitvice Lakes National Park.**
Kazimir Miculinić, Nikola Markić, Sanja Žalac, Andrijana Brozinčević

**10.30 - Future regional hot-spot for science and education of caves and karst
“Center of excellence - Cerovac caves: sustainable management of natural heritage
and karst underground”.**
Stipe Tutiš, Petra Kovač Konrad, Dalibor Jirkal, Matea Talaja, Nina Trinajstić

10.45 - Microplastic pollution in Slovenia Karst.
Lara Valentic

11.00 - Coffee break



VI SESSION: Archaeology and paleontology in karst caves

11.30 - **Rupestrian sanctuaries in the prehistoric Sicily - The hyblean area:
the case of Grotta Lazzaro (Modica).**

Giovanni Distefano

11.45 - **Turning a structural-karst cave into a mine:
how the Romans exploited the gypsum crystals of lapis specularis
in the Grotta Inferno complex (Agrigento, Sicily).**

Stefano Lugli, Rosario Ruggieri, Nuccia Gulli

12.00 - **Miraculous milk caves (Lattaie) of Italy.**

Ann Pizzorusso

12.15 - **The oldest drawings and inscriptions in caves and rocks in Bosnia
and Herzegovina.**

Jasminko Mulaomerović

12.30 - **“Ice House” - the first safe founding on the mountain Visočica in southern Bosnia.**

Jasminko Mulaomerović

12.45 - **The contribution of karst sites in the knowledge of Quaternary mammals of Sicily.**

Antonella Cinzia Marra

13.00 - **Reassessment of age and identification of a relatively complete large felid fossil
in Gua Naga Mas, Perak, West Malaysia.**

Ros Fatihah Muhammad

13.15 - Lunch break

POSTER SESSION

14.30 - **Start of the session**

Hydrologically the most important water resource in the croatian karst.

Maja Oštrić, Maja Radišić, Josip Rubinić

Soil radon concentration in the Ragusa province (Sicily, Italy)

Marianna Siino, Giuseppe Alessandro, Salvatore Buonmestieri,
Antonino D'Alessandro, Rosario Mineo, Salvatore Scudero



Vulnerability of karst sites: natural reserve grotta di Sant'Angelo Muxaro and the problems related to the city above the protected vault. (Sant'Angelo Muxaro - Agrigento)

Giovanni Buscaglia - Daniele Gucciardo - Marco Mariano Interlandi
Giuseppe Lombardo - Giovanni Noto

Criteria of groundwater protection in a coastal karst region of North-western Sicily.

Cimino Antonio & Abbate Rosario

The karst geomorphology of the central Middle Atlas (Morocco): Towards a heritage valuation.

Khaoula Baadi, Abdellah Sabaoui, Bernard Lebreton, Brahim Tekiout.

Diversity and community structure of Ephemeroptera, Plecoptera and Trichoptera in rivers Ruda and Grab

Cvitanić M, Meknić S, Piasevoli G.

Clay mineralogy and magnetic susceptibility of a possible sedimentary record of Bronze Age deforestation practices in a karst area of SW Romania.

L.Faur, I. C. Mirea, C. Panaiotu, B. Soare, V. Drăgușin.

The Geomorphological Response of Siliciclastic and Carbonate Rocks to Fluvial Erosion. The case of the Gravina Creek Drainage Basin (Southern Italy).

Claudio I. Casciano, Domenico Capolongo, Marcello Tropeano

Tracing ancient rural landscapes in southeastern Sicily: integrating new and traditional survey methods within the Hidden Archaeological Hyblaean Landscapes Project (HAHLP).

Rodolfo Brancato, Saverio Scerra, Edoardo Tortorici.

Ancient artefacts in the Hyblean Plateau: a puzzling case study from the Palagonia area.

Rosalda Punturo, Giovanni Sturiale, Carmela Vaccaro, Rosanna Maniscalco, Rosolino Cirrincione.

Mills on old postcards from Bosnia and Herzegovina - water, man, karst -

Mirnes Hasanspahić

Use of unroofed cave for recognition of neotectonic deformations of karst surface - case study of the unroofed cave Loza, W Slovenia.

Astrid Svara, Jože Čar, Andrej Mihevc

A miniaturized chemical sensor for the monitoring of sulfide species on water caves.

Salvatore Petralia, Sabrina Conoci, Emanuele L. Sciuto, Francesca Santangelo, Sebania Libertino, Maria Anna Messina, Giuseppe Nicolosi, Fiorenzo Fiorenza

Faunistic study of the “inghiottitoio Monte Conca”

Giuseppe Nicolosi, Sandro Galdenzi, Fiorenzo Fiorenza, Francesco Leone, Maria Anna Messina, Salvatore Petralia, Serban M. Sarbu.

Geo-tourism: Karstic geosites in Libya

El-Shawaihdi M. H, Salloum F. M, Awami Y. M.



Karst Geosites of the Favignana island

Rosario Ruggieri, Antonio Bambina, V. Davide Messina Panfalone, Flaminia Asta, Antonello Ingallinera, Giovanni Gianninoto, Roberto Gintoli, Giorgio Sammito, Giusi Adragna, Paolo Vultaggio, Andrea Barone, Riccardo Orsini, Tonino Trovato, Paolo Costanzo.

The karst on the selenitic gypsum of the San Bartolomeo hydrogeological basin (Calatafimi, TP) related to the geochemistry of the waters of the "Fiume caldo": speleology as a method of deepening

Roberto Grammatico, Luigi Fontana, Rosario Bonventre

FIELD TRIP

15.30 - Departure for Field Trip: Geosite asphalt mine of Tabuna and limestone mine of Cava Gonfalone

17.30 - Welcome refreshment by Ragusa Cementi Spa

18.30 - Pullman departure for Ragusa Ibla town

19.00 - Visit of old town of Ragusa Ibla (Barocco UNESCO World Heritage)

20.30 - Free dinner

23.00 - Pullman departure to Hotel Ragusa

WEDNESDAY 26 JUNE: FULL DAY EXCURSION

7.30 - Departure for field trip of Pantalica Natural Reserve (Ferla town side)

9.00 - Valle dell'Anapo - Necropoli of Pantalica - Calcinara gorge excursion

12.00 - Departure to Monello Cave

13.00 - Welcome light lunch by Cutgana

14.00 - Visit of Monello Cave (Natural Reserve) and Chiusazza Cave

17.00 - Departure for return to Ragusa

20.00 - Pullman departure for Visit of Scicli town (Barocco UNESCO World Heritage)

**Events: Gala reception at the Monumental sixteenth century Convento della Croce
Photo Contest award**



SIDELINE EVENTS OF MAN AND KARST

1. Photo Contest (Geology and Karst landscapes)

2. Books showroom

3. Posters exhibition

POST CONFERENCE EXCURSIONS

Thursday 27 June (see excursion sheet)

“Realmonte mine, Scala dei Turchi, Agrigento archaeological Park”

Friday 28 June (see excursion sheet)

“Valle del Bove and lava tube cave in the Mount Etna Volcano