

## REPORT ON 34<sup>TH</sup> IAS (INTERNATIONAL ASSOCIATION OF SEDIMENTOLOGISTS) MEETING, 10-13 September 2019, ROME (ITALY),

Dear SEPM MEMBERS, as SEPM Ambassador for Italy, I'm pleased to present a short report on 34<sup>th</sup> (IAS) International Association of Sedimentologists on "*Sedimentology to face societal challenges on risk, resources and record of the past*" held in Rome, at the Earth Science Department of La Sapienza, University of Rome (Italy), during September 10-13, 2019. The convention was organized by the Department of Earth Sciences Department of La Sapienza, Rome (Italy) under the patronages and sponsorships of:



The number of registered delegates was 1023 from 56 countries, and:

- 209 student and 238 ECS (Early Career Scientists Committee) = Total 457 “juniors”
- 500 orals (43 keynote talks, 3 plenary)
- 700 posters
- 335 participants to 10 fieldtrips, 3 workshops and 1 shortcourse.

The meeting was attended by researchers and students from universities and research institutes, as well as professionals from industries like oil and natural gas and many others. Many thanks are due to the Organizing Committee in the persons of:

Chair: F.L. Chiocci (Università di Roma “Sapienza”) and Co-Chairs: M. Brandano (Università di Roma “Sapienza”) and D. Casalbore (CNR-IGAG - Università di Roma “Sapienza”)

Honorary Chairs: A. Bosellini, E. Mutti and F. Ricci Lucchi

Treasurer: V. Pascucci (Università di Sassari)

Fundraising: S. Cirilli (Università di Perugia)

Field-Trips: M. Tropeano (Università di Bari)

Visual: L. Sabato (Università di Bari) and S. Longhitano (Università della Basilicata)

Early Career Scientists Committee Program: A. Di Capua (CNR, Milano)

S. Agostini (Soprintendenza Archeologica, Belle Arti e Paesaggi dell’Abruzzo)

S. Cappucci (ENEA, Ente per le Nuove Tecnologie, l’Energia e l’Ambiente)

S. Catalano: (Università di Catania)

D. Cosentino: (Università “Roma Tre”)

C. D’Ambrogio: (ISPRA, Istituto Superiore per la Protezione e la Ricerca Ambientale)

G. Davoli: (ENI, Ente Nazionale Idrocarburi)

F. Galadini (INGV, Ist. Naz. di Geofisica e Vulcanologia)

M.C. Giovagnoli (ISPRA, Istituto Superiore per la Protezione e la Ricerca Ambientale)

F. Lirer: (CNR, Consiglio Nazionale delle Ricerche, Napoli)

L. Marinangeli: (Università di Chieti)

M. Moscatelli: (CNR, Consiglio Nazionale delle Ricerche, Roma)

P. Petrosino: (Università di Napoli “Federico II”)

M. Rebesco: (INOGS, Istituto Nazionale di Oceanografia e di Geofisica Sperimentale)

A. Sposato: (CNR, Consiglio Nazionale delle Ricerche, Roma) and especially to the 24 volunteers students.

A wide range of field or laboratory activities were offered to the registered participants, with 8 pre-conference (A), 6 intra-conference (IM) and 8 post-conference excursions (B) as well as 3 half-a-day intra-meeting workshops (IW) and 3 short courses (SC), one fieldtrip and two workshops for Early Career Scientists (Fig. 1).

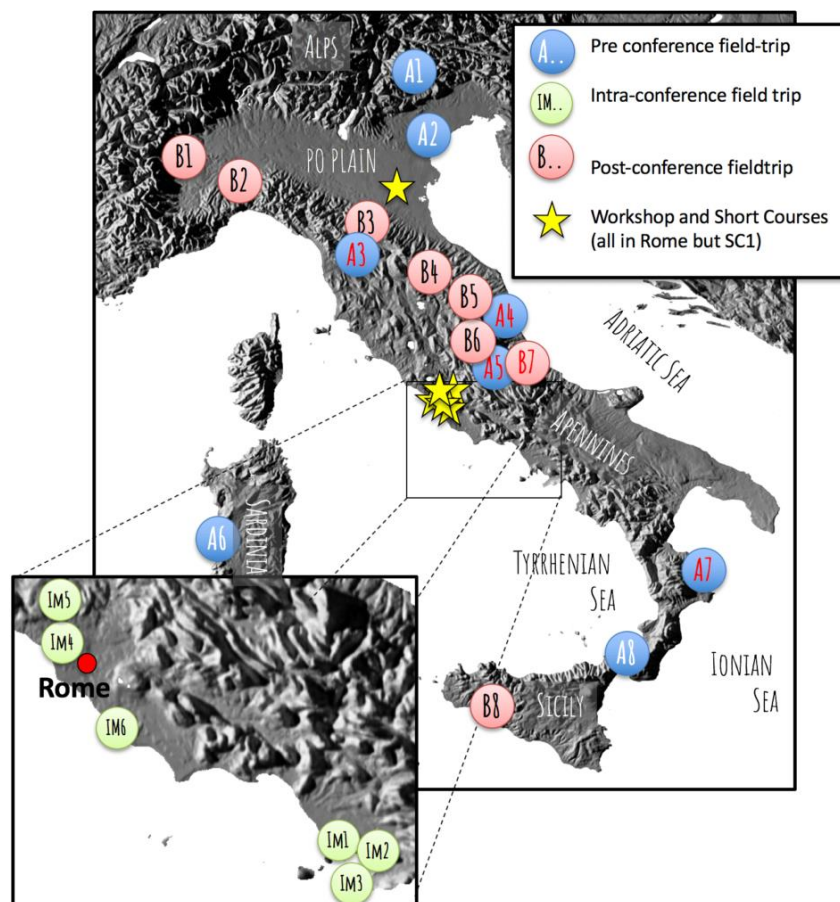


Fig 1.: Activities during the 34<sup>th</sup> IAS Meeting in Rome (September, 10-13 September, 2019)

The three Plenary Lectures were introduced by the Conference Honorary Chairs, Prof. E. Mutti, Prof. A. Bosellini and Prof. F. Ricci Lucchi and were held by Adriano R. Viana – Petrobras S.A (*Deep water depositional systems, new frontiers of sedimentology and oil exploration*), Sam Purkis – University of Miami

(*Emergent Behavior and Emerging Methods in Carbonate Depositional Environments*) and A. Amorosi – University of Bologna (*The sequence stratigraphy of coastal plain and alluvial deposits: A look into the future using the Quaternary record*).

I report my attendance from the following sessions:

**1. Session 7.B:** *When volcanoes meet the environment* (Conveners: Andrea Di Capua, CNR – IDPA, Italy, and Gabor Kereszturi (Massey University, New Zealand). The session, co-sponsored by the Commission on Volcanogenic Sediment of the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI), focused on the primary and secondary volcanoclastic processes representing the crossroad between volcanological and sedimentological processes, and their influence on the environment. This session brought together many researchers working on volcanic or volcanically influenced terrains to unravel the generation, transport and settling of volcanic particles through the geological time in different environments. Many presentations, both oral and as posters, included: 1) field-based description and interpretation of volcanoclastic sediments and related processes both in modern and ancient realms, 2) provenance studies that highlight the influence of volcanic activity on sedimentary basins, 3) studies on the characterization of physico-chemical processes that lead to the generation and weathering of volcanoclastic particles through time (Fig. 2).



Fig. 2.: dr. Andrea Di Capua presenting his key-note lecture entitled “A classical sedimentary approach to the study of a subaqueous pyroclastic deposit: the 2002 block and ash flow deposit offshore of the Montserrat Island”

Dr. Di Capua was the referenced person of the IAS - ECSC (EARLY CAREER SCIENTISTS COMMITTEE), a group of the IAS Society formed by young sedimentologists, that organized a social event and two workshops dedicated to all the young scientists attending the meeting. The social event, entirely sponsored by the Italian Organizing Committee, took place in an Irish Pub near to the Colosseum and offered free food and drink until 2 a.m. in the morning to all the participants.

Two ECS workshops were organized during the second and the third day of meeting. The first workshop, titled: “*How to survive to a review*”, held by Peir Pufahl (Acadia University) and Giovanna Della Porta (University of Milan), two of the editors of the IAS journals, was attended by more than 50 ECSs, interested in learning how to deal with the review of manuscripts and to answer to review comments in a positive and constructive way during the submission process. The second workshop, titled: “*How to prepare your CV (and yourselves) for an application*”, held by Tracy Frank (University of Nebraska) and Adrian Viana (Petrobras), was attended by 30 people and aimed to explain how to valorize job profiles for job applications both in the academical and industry world.

Five student and five ECS posters have been also awarded as best posters of the meeting. The winners are:

#### ***Best Student Posters***

Isabella Masiero (University of Liverpool), Monia Sabbatino (University of Naples Federico II), Tomas Tam (University of Western Australia), Sara Rodriguez (Royal Holloway University of London), Hanaa Deik (RWTH Aachen);

#### ***Best ECS Posters***

Chiara Zuffetti (University of Milan); John Counts (University College Dublin); Marta Marchegiano (University of Geneva); Guillaume Jouve (iXblue), Gwénaél Caravaca (University of Nantes).

**2. Session 9.A:** *From sediment generation to sediment routing systems* (Conveners: L. Caracciolo (GeoZentrumNordbayern, FAU Erlangen-Nürnberg, Germany), S. Andò (Department of Earth and Environmental Sciences, University of Milano Bicocca, Italy); D. Chew (Department of Geology, School of Natural Sciences, Trinity College Dublin, Ireland); A. Resentini (Department of Earth and Environmental Sciences, University of Milano Bicocca, Italy).

The session focused on sediment generation and associated routing systems regulating the fate of sediments from source to sink. The quantitative assessment of source to sink systems has been achieved through multidisciplinary approaches, with contributions focusing on I) numerical landscape modelling, II) mass balance – sediment budget – erosion rates, III) chemical weathering, IV) mechanical wear, V) transport dynamics (partitioning and sorting) and VI) depositional controls on early diagenesis.

**3. Session 9.B.** *Arenite petrology for unravelling hinterland and offshore paleogeography. A tribute to Gian Gaspare Zuffa.* (Conveners: S. Critelli and R. De Rosa (University of Calabria, Italy); J. Arribas (Universidad Complutense de Madrid, Spain); W. Cavazza (University of Bologna, Italy);, (D. Fontana, University of Modena; Italy), C. Stefani (University of Padua, Italy); E. Garzanti (University of Milan Bicocca, Italy)

The session started as a session to pay homage to prof. Gian Gaspare Zuffa and his scientific contribution to arenite petrology and the source to sink paleogeography interpretations by using detrital signatures of these clastic rocks. Many presentations focused on spatial and temporal significance of sand(stone) particles as one of the main focus for outstanding quantitative provenance analysis of clastic sediments, a topic in which after pioneering work of Zuffa in 1980, more than thirty years of research, provided significant contributions in diverse ancient and modern sedimentary basins in the world. The Session Keynote Talks were held by Prof. H. Bahlburg of the Institute of Geology and Palaeontology (University of Münster, Germany) and entitled “*The missing link of Rodinia break up in western South America: A zircon U-Pb and Hf isotope study of the volcano sedimentary Chilla beds (Altiplano, Bolivia)*”, and by prof. S. Critelli (University of Calabria, Italy) focusing on “*Provenance of Mesozoic to Cenozoic circum-Mediterranean sandstones in relation to tectonic setting*” (Fig. 3). Both lectures highlighted the record of tectonics in sedimentary siliciclastic archives and dispersal pathways within sedimentary basins, quantifying sedimentary budgets, useful for paleogeographic and paleotectonic reconstructions.

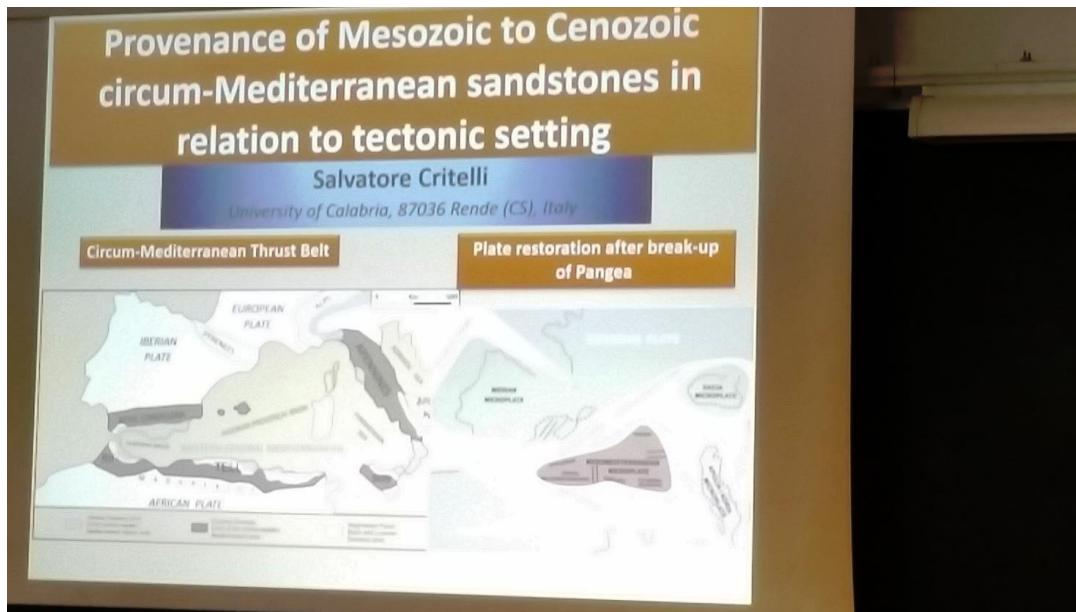


Fig. 3.: Presentation at Session 9.B entitled *Arenite petrology for unravelling hinterland and offshore paleogeography. A tribute to Gian Gaspare Zuffa*. by prof. Salvatore CRITELLI (DiBEST, Università della Calabria, Italy).



Fig. 4: IAS delegates during the 34<sup>th</sup> IAS Meeting in Rome (September, 10-13 September, 2019) at the main entrance of the Geology Institute of Earth Science Department of La Sapienza, University of Rome (Italy)

Many thanks are due to delegates (Fig. 4). The IAS Organizing Committees decided that the next meeting will be held at Prague (Czech Republic) next June 22-25, 2020.

Best regards

Emilia Le Pera