# IAS

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## International Association of Sedimentologists

## IAS Bureau and Council



Link to **IAS National Correspondents**:
http://www.sedimentologists.org/network/correspondents

# CONTENTS

# EDITORIAL

Newsletter 237 is mainly dedicated to the report of events sponsored by the IAS and occurred during the last two months. It is worthy to note the good success of all of these meetings and the increasing number of participating students. Moreover, both the Italian and Egyptian Association of Sedimentologist had renewed their bureau.

The central part of the Newsletter is focussed on the «rules» to publish on Sedimentology that is continuing to improve its impact factor.

The last part is dedicated to student corner. Patrick Dal Bo presents his researches on **Sediment and paleosol interactions in eolian sand sheet areas.** About this I strongly invite students to present their research in the IAS Newsletter.

No Noticeboard and Super Sedimentological outcrop sessions are present in this issue. About these items I invite all members to provide me material to develop this part of the Newsletter.

A book review is inserted at the end of the Newsletter.

Please have a look of the Announcements and remember that those with * are fully or partially sponsored by IAS.

*Vincenzo Pascucci*
*(General Secretary)*

REPORTS

# The 5th International Limnogeological Congress, ILIC V 2011, in Konstanz, Germany

Lake basins are dynamic systems with both response and records of environmental interactions; this is the guiding theme of the International Association of Limnogeology (IAL). IAL links together researchers studying lake basins, both modern and ancient, not just for deciphering global and regional paleoclimates, but also for understanding sedimentological processes, basin tectonics and human impacts on lake systems. Thus, limnogeology is a young geoscience with a unique and

*The stunning city of Constance in Germany provided a wonderful framework for the 5th International Limnogeological Congress.*/Beth Gierlowski-Kordesch (Ohio, USA).

*A panel of senior scientists awarded poster winners to six PhD students. One of the winners was IAS-sponsored student Cecilia Benavente from Argentina (right).*/ Beth Gierlowski-Kordesch (Ohio, USA)

valuable place among frontier research topics.

After venues in Copenhagen, Brest, Tucson and Barcelona, the 5th International Limnogeological Congress was held at the University of Konstanz, Germany, from August 31st through September 3rd, 2011, on the banks of Lake Constance. The lake is the 2nd largest lake in Central Europe, shared among Austria, Switzerland and Germany, and thus

*Mid congress fieldtrip participants enjoying the breathtaking landscape around Lake Constance.*/Beth Gierlowski-Kordesch (Ohio, USA)

*IAL commission during the Conference dinner on Lake Constance that was a highlight of the event.*/Beth Gierlowski-Kordesch (Ohio, USA).

target of manifold international cooperation.

The congress attracted ca. 200 participants from 26 countries, out of which one third were young scientists working on their dissertations. While Europeans represented the majority of participants there were also an important participation of delegates from North America, Asia, Central and South America, and Africa.

Over 200 oral and poster presentations were presented and organized in 13 diverse scientific sessions dealing with lake systems from geographical key areas ranging from the Poles to the Tropics and from low to high altitudes; other sessions had a methodological focus on innovative stable isotope methods and progress in the quantification of environmental information from biological proxies; and phanerozoic lake systems served as archives for pre-Quaternary climates and environments. Another series of presentations dealt with hazardous processes such as in volcanic lakes, others focused on lakes of tectonic origin, and also on human impact on modern lakes and the environment. Discussions were fueled by seven stimulating plenary talks dealing with microbes in lake sediments, and addressing the role of lake sediments as source rocks and of lake systems for the global carbon cycle. Two mid-conference field trips were organized to the isles and peninsulas of Lake Constance and presenting the Geology of the surrounding area of Konstanz. One pre- and one post-congress excursion took place to and on Lake Lucerne, Switzerland and to the Lake Constance lower lake area, respectively.

Several sponsors provided travel grants to nine young and early career scientists from mostly overseas, as well as book awards for poster presentations to PhD students. Following its policy of promotion of young students members of the association, IAS sponsored Cecilia A. Benavente (IANIGLA-CONICET,

*Walt Dean delivering one of the excellent keynote talks during the congress.*/Beth Gierlowski-Kordesch (Ohio, USA)

Mendoza, Argentina) participation in the congress who presented her research on *Freshwater sponges from Triassic carbonates of Argentina (Cuyana Basin)*. After a tough competition among a series of high quality posters, Cecilia's presentation was awarded along with other five students by a panel of senior scientists. Cecilia successful participation in the congress is encouraging further IAS sponsoring of IAS student members at meetings within the broad field of sedimentology! Check the association website and do not hesitate contacting the bureau members if you want to know more details about this sponsoring schema.

*Daniel Ariztegui*
*(Geneva, Switzerland)*
*Antje Schwalb*
*(Braunschweig, Germany)*

# International School on Carbonate Sedimentology

## *SEPTEMBER, 22-26TH 2011, CASERTA (ITALY)* «**INCEPTION AND DEMISE OF CARBONATE DEPOSITIONAL SYSTEMS**»

The School took place in Caserta (Italy), at the Scientific Pole of the Second University of Naples. It has been organized on behalf of the GeoSed (Italian Association for Sedimentary Geology) and IAS.

The organizing committee of the school included Daniela Ruberti (Second University of Naples) Lucia Simone (University of Naples) Gabriele Carannante (University of Naples).

*The lectures.....*

*The Dragoni Quarry: a superb exposure of a doline-like karst surface filled with bauxite underlining a longer-lasting subaerial exposure during the mid-Cretaceous.*

*Working on the outcrops.....*

Aim of the School was to focus on the ecological strategies of recovering after occurrences of crisis affecting the carbonate platform systems, either controlled by global or local factors. Participants from different countries have attended the 5 days lectures and field surveys that provided new significant insights in the study of the carbonate shallow-water environments and related biofacies integrating sedimentological, taphonomic, biological and ecological approach.

The keynote speakers were L. Simone (*Inception and demise of carbonate depositional systems: introduction; Litho- and bio-facies associations*), T. Steuber (*Techniques of carbon and Sr-isotope chemostratigraphy with examples from Cretaceous carbonate platforms; Comparison of platform response to OAE1a and OAE2 with some case studies; Biostratigraphy of Late Cretaceous rudists and carbonate platforms based on SIS*); P.W. Skelton (*Palaeobiology and taphonomy of rudist bivalves and other contemporaneous platform biota; Palaeogeographical variation in mid-Cretaceous platform development and biotic associations; Modelling the interactions between mid-Cretaceous climatic and oceanic changes and the turnover of platform biota; The role of platforms in the global carbon cycle of the mid-Cretaceous*), and D. Ruberti (*Inception and demise of carbonate depositional systems: case histories from the central-southern Apennines*).

The fieldtrip covered the topics to which the school was addressed by the analysis of several outcrops along the central-southern Apennines (southern Italy). The leaders, D. Ruberti, L.Simone, G. Carannante and S. Bravi (University

*Rudist biostrome of Albian time*

*Overview of the Matese outcrops.*

of Naples), introduced the participants to sedimentological evolution of the shallow water limestone cropping out in that area and to the drastic changes in the carbonate factory characterization and in the related depositional systems following the climatic and tectonic events that affected the peri-Tethyan Region during Cretaceous times.

Superb exposures either of the paleoecological changes and the associated facies have been observed along the Matese Lake area (the Serra Sbregavitelli-Serra delle Macchietelle section). The tectonically evolution of these shallow water domains is exposed in Pietraroja, where a significant erosion event is materialised by a channel-like incision more than 600 m

Bacinella/*Lithocodium* *oncoid, graded, storm layer cut by a fracture filled with grey-yellowish silts*

*Working on the outcrops.....*

wide and approximately 80 m deep.

Particular insight on the mid-Cretaceous climatic shiftings and the resulting important changes in the benthic assemblages and in the related facies have been offered in the Monteforte Cilento area, where silicified evaporite deposits characterize the upper Albian-Cenomanian successions, suggesting an arid, evaporite-promoting climate.

*Daniela Ruberti*
*Second University of Naples*

# ISTT - International School of Travertine and Tufa

On September 5–9, 2011, the ISTT - International School of Travertine and Tufa - was held in Abbadia San Salvatore, Italy, gathering forty participants from all over the world. Amongst the attendees were many experts of the continental carbonates scientific community who have a well-established name and an extensive publication record. However, there were also large numbers of young attendees, both at graduate and postgraduate level, who presented their new results and discussed new ideas. The propose for

*Internal view of the ISTT site*

*Participants during the morning session*

this School came from Enrico Capezzuoli (University of Siena), who thought that an international symposium on epigean continental carbonates would stimulate international cooperation and the exchange of ideas and results. His efforts were quickly joined by those of Andrea Brogi (University of Siena), Adele Bertini and Marianna Ricci (University of Florence). What follows is a brief account of the exceedingly interesting meeting, of the ideas that were presented and discussed during the meeting.

The school took place in Mining Museum of Abbadia San Salvatore (Tuscany, Italy), an historical archeo-industrial site renewed in the last decade, in the «Ex officine meccaniche» building, a large area where was possible to host all the activity of the event (Fig.1).

There was a desk at which the attendees could register for the school and collect their nametags, as well as a technical desk at which speakers could upload their presentations to the computer that would be used during the school. Desk was manned by the «Terre di Toscana» Agency, an Abbadia San Salvatore's organization which did an excellent job throughout the school in facilitating all manner of accommodation and technical aspects. To them, therefore (Roberta, Filippo, Anna and collaborators), a big thank you!!

The 8 posters submitted were mounted during the morning of first day in the same room where coffee breaks were served, in a way that all participants could read them during the inter-keynotes breaks.

The first three days of the school were organized in two sessions (morning and afternoon) where 4 invited keynotes (2 each session) of about 90 minutes took place (Fig.2). A

*Lunch time for the participants*

*Guided tour in the reconstructed cinnabar mines of Abbadia San Salvatore*

*Visit of the local Mining Museum.*

coffee break of about 30 minutes divided each keynote to discuss and to examine the poster session (and to recharge batteries!!). On Monday 5th, at 9 o'clock, the school was introduced by the Organizers and by the local authority, represented by Patrizia Mantengoli (Alderwoman of Abbadia San Salvatore).

The first keynote was by Angelo Minissale (CNR Florence - Italy). In his talk, he gave a general overview of the carbon cycle with particular emphasis on $CO_2$ and its relationship with limestone deposition process. The morning session was concluded with talk by Domenico Liotta (University of Bari - Italy) who showed the relationships between geological structures and geothermal resources in southern Tuscany with the explanation of the Tuscan geothermal area.

A quick (and light!!) lunch was every day served in an adjacent room where keynoters and participants could join together and have productive discussions (Fig.3).

After lunch, Paola Tuccimei (University of Roma3 - Italy) gave an overview on the Uranium-series and trapped charge dating methods of tufa and travertines, with examples derived from recent research. This keynote was followed by presentation by Nada Horvatinèiæ (Ruider Boskovic Institute of Zagreb - Croatia) on environmental and palaeoclimate conditions of tufa formation, with results of investigation of tufa deposits from the Dinaric Karst in terms of the conditions of formation, using physical and chemical parameters in conjunction with isotopic measurements ($^{14}C$, ä$^{13}C$ and ä$^{18}O$).

During the afternoon break, there was an opportunity to discuss posters with

*Detailed travertine observation at Bagni San Filippo*

their respective authors. Poster presentation and discussion, drinks and lively interaction between the participants concluded the first day of the school.

The morning program of the second day began with a keynote by Enrico Capezzuoli (University of Siena - Italy) on the sedimentology of travertine. He showed how the sedimentological-petrologic study of the travertine allows to establish its genetic microenvironments of deposition and to define the depositional processes of the different lithofacies, in order to reconstruct the respective parent depositional systems and the paleogeographic frame. This presentation was followed, after the daily morning coffee break, by talk by Andrea Brogi (University of Siena - Italy) on the tectonic-travertine relationships. Here, he described the analysis of travertine masses in terms of morphology, spatial distribution and age opens. This allows new ways for studying brittle deformation and defining the geometry and age of faults.

As the aroma of food permeated the air of the room, it was increasingly obvious that it was time for a much deserved lunch break and the program was adjourned.

The afternoon program started with Giovanni Ruggieri (CNR Florence - Italy) keynote on fluid inclusion in travertine deposits. This keynote was focused on the description, nature and origins of fluid inclusions, of the fundamental analytical methods and their interpretation and elaboration, with recent, innovative, application on hydrothermal calcite veins associated to the travertine.

After the short coffee break, Sandor Kele (Institute of Geochemical research of Budapest - Hungary) gave a keynote on the geochemical study of travertine

*The «Il Bollore» site at Bagni San Filippo*

deposits and the use of the stable isotope and trace elemental composition in the paleoenvironmental, paleoclimate and paleothermometry reconstruction.

This keynote was followed by 6 short volunteer presentations of the ISTT participants that presented their case study: - Mehmet Özkul (Pamukkale University – Turkey) on the travertine along the Turkish East Anatolian Fault System; - Julie Dabkowski (Département de Préhistoire du Muséum National d'Histoire Naturelle di Paris - France) on the paleoenvironmental reconstruction from the tufa of the Northern France site of La Celle; - Louis Emery (Cardiff University - Wales) on an industrially created tufa system in South Wales; - Hükmü Orhan (Selçuk University - Turkey) on the sedimentological chacteristics of the turkish tufa of Aydýncýk; - Marco Pola (University of Padova - Italy) on the Italian Montirone travertine mound of Abano Terme; - Saša Zavadlav (Jo•ef Stefan Institute of Ljubljana - Slovenia ) on the stable isotopic and hydrogeochemical composition of tufa-depositing water in the Slovenian Krka River.

The ISTT was not only science!! After these presentations, the participants benefit of a guided tour in the reconstructed cinnabar mines of Abbadia San Salvatore (active until the end of the last century - Fig.4), after which they reached the garden of Hotel Fabbrini, not far from the School site, where the social dinner was served. Keynoter and participants have appreciated the local food, characterized by pasta, meat (wild boar), mushrooms and wine!!! The atmosphere was one of lively conversation and enjoyment

The third day of the school started with a keynote by Concha Arenas-Abad

*ISTT group picture at Bagni San Filippo*

(University of Zaragoza – Spain) on the sedimentology of tufa deposits. Lecture aimed to provide the basis to search for paleoenvironmental information (depositional, hydrologic, and climatic) from the sedimentologic analysis of

*Tasting travertine...*

*ISTT group picture in Rapolano Terme*

tufa deposits, focusing on several Cenozoic examples of Spain. The second keynote of the morning was by Martyn Pedley (University of Hull - England) on form and function of the freshwater (tufa) microbial biofilm. Martyn discussed about the precipitate-associated biofilms and provide an example of complex intercellular collaboration serving the communal purpose of calcium ions removal.

After lunch, Anna Gandin (University of Siena - Italy) gave a keynote on travertine and calcareous tufa petrography, focusing on the litho- and micro-facies and their related depositional environments. The last presentation (and keynote) of the school was given by Adele Bertini and Marianna Ricci (University of Florence - Italy) on palynology in carbonate deposits. Adele illustrated the principles and main function of pollen analysis, giving special emphasis on its contribution for the Quaternary stratigraphical and paleoenvironmental reconstructions , while Marianna focused on the potentiality of pollen analysis application in the study of travertine, tufa and speleothems by the results of her PhD. Presence of Marianna, despite of her advanced state of pregnancy, was very appreciated!!!! Even during this third day the ISTT benefit of recreation event. In fact a guided visit of the local Mining Museum took place after the last keynote (Fig.5), while after dinner the ISTT group visited the historical centre of Abbadia San Salvatore (Romanic abbey of the XII century and well preserved walled town), ending in a local wine shop with wine testing and accordion music!!

The last two days of the ISTT were dedicated to field trip excursions on tufa and travertine deposits in southern Tuscany. In this occasion the organizers planned to visit several travertine and tufa sites where studies are now

*Productive discussion on travertine and tufa!!!*

published or at this moment still in progress. The first day morning was devoted to the travertine deposits of Bagni San Filippo, where is possible to compare fossil and active systems (Fig.6, 7, 8, 9). During the afternoon the tufa calcareous body of Sarteano was overviewed from panoramic point of the Middle Age castle and in the excavated graveyard of the local Etruscan necropolis.

During the morning of second day field trip, the ISTT group visited the Rapolano Terme travertine deposits. The first stop was in the Oliviera quarry (Fig.10) where is possible to observe the internal architecture of one of these fan-shape travertine bodies, the associated lithofacies and was illustrated the palynological content. In the late morning was reached the fissured ridge of Terme San Giovanni, one of a few active fissure ridge in the world. After the lunch, the group moved northernward for the visit of the tufa deposit of the Valdelsa area and the active site of Diborrato near Colle Val d'Elsa. The visit was enjoyed both for the natural environment and for the fresh shadow of the site, that during this late-summer day of September was characterized by a hot temperature (more than 30°C!!).

This was the last stop of the field trip and the participants bade farewell to each other.

The occasion is perfect for thanks all people that help us in the organization and success of the ISTT (Antonella, Arabella, Daniele, Ivan, Marco). Don't forget the Italian Geological Society (SGI), the Italian Association for Quaternary Researches (AIQUA), the Italian Council for Researches (CNR), the Italian Association for Sedimentary Geology (GeoSed) and the Province of

Siena that allow the realization of this school. A big support derived from the IAS that financed the event with 8 student travel grants.

On a final note, we can say that this School was extremely interesting (Fig.11) and we can only hope that this type of smaller, specialist meetings will be organized more often in the future. It allows for more interaction between the participants and provides an excellent platform for collaboration between specialists in different fields studying the same topics.

We hope that a new international travertine/tufa area will held the next edition of this event, anyway it was a pleasure to welcome you in Abbadia San Salvatore.

*Enrico Capezzuoli & Andrea Brogi*
*(University of Siena)*
*Adele Bertini & Marianna Ricci*
*(University of Florence)*

# 10th Meeting of the Italian Association of Sedimentary Geology (GeoSed)

On 27th to 28th September in Caserta took place the 10th meeting of the Italian Association of Sedimentary Geology (GeoSed). About 60 participants attended the meeting and more were present the first day dedicated to the researches conducted for more than 40 years by Bruno Dargenio.

K-notes by S. Longhitano and P. Skelton underlined the recent researches on tidal and carbonate deposits. Nice debate rose up from presentation of potential tsunamis and coastal environments along the Mediterranean.

During the meeting the new board was elected. Main points underlined by the president are the relationships between GeoSed and the Società Geologica Italiana, the development of research groups, to increase the number of people attending the annual meeting, to better define the


*Good luck president!!!*


*People attending the meeting and waiting for a medieval dinner in Caserta Vecchia*

role of the Association in both FIST and CUN, and finally to continue in organizing schools and thematic meetings.

*The new Bureau is composed by:*
*Vincenzo Pascucci*
*President (Sassari)*
*Daniela Fontana*
*Vice-president (Modena-Reggio Emilia)*
*Massimiliano Ghinassi*
*Secretary (Padova)*
*Marco Brandano*
*Councillor (Roma)*
*Sergio Longhitano*
*Councillor (Potenza)*
*Daniela Ruberti*
*Councillor (Caserta)*
*Luisa Sabato*
*Councillor (Bari)*

# Activities of the Sedimentological Society of Egypt

- The originator and the first chairman of the society and its Journal is Prof. Soliman M. Soliman, Emeritus Professor of Sedimentology in Ain Shams University
- The society is publishing the Journal of the Sedimentological Society of Egypt annually; «Sedimentology of Egypt» from 1993 until now (19 volumes).
- The journal covers a variety of disciplines of Egyptian sedimentary geology, application and economics.
- Board meetings are regularly held monthly and annually to discuss the papers that will be published in the volume in process.
- During the annual conference of the society, two awards are granted, namely;

1. Research awards; two prizes.
2. Dissertation awards; two prizes for the outstanding M.Sc. and Ph.D. Theses.

- Sedimentologic Library have been established and affiliated in the Department of Geology, Ain Shams University
- Sedimentologic Lecture Season and invited talks
- Field trips and excursions (3 to 5 days) are annually organized for the society members and their guests to Sinai, Oases, Aswan and coastal zones.
- The registered members of the society reached 459 members.

*Sedimentological society of Egypt conference held in*

*Sedimentological society of Egypt conference held in 2008*

*Egyptian Sedimentological Society Trip to Abu Zenima area, SW Sinai, May 1-2,2008*

## The Sedimentological Society of Egypt

### *Executive Board (2011)*

| | |
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| 4- Prof. Dr. Fathy A. I. Amar | (Editor) |

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# GETTING PUBLISHED IN SEDIMENTOLOGY: SOME BRIEF NOTES FOR POTENTIAL AUTHORS

The continued improvement in Sedimentology's Impact Factor (now at 2.23), the general scientific reputation of the journal and an emphasis on high quality production (including free colour illustrations) are associated with a steady increase in the number of submissions received, up by approximately 20% since 2006. This is an excellent position to be in and we are grateful to the sedimentological community for their continued support as readers, authors and reviewers. However, this success means that it is possible only to publish between 30% and 35% of the papers that we are sent. Publishing standards must therefore be high and, although our editorial system is focused on helping authors to improve their papers and maximise their impact, all but the best papers have to be rejected. It is therefore important for potential authors to know what the editorial team are looking for. The simple answers are fit to the journal's remit (all aspects of sedimentary processes, sediments and sedimentary rocks) and scientific excellence; but what is scientific excellence? The following notes cover a set of publishing criteria recently agreed by the Editorial Board that lay out our expectations of scientific excellence. This brief also includes some other important considerations that will help authors maximise the quality of submitted papers.

## Publication criteria

Successful submissions will exhibit the following qualities. The list is not exhaustive. It is used to guide editorial decisions and to help authors target weaknesses. Authors should use this as a checklist to ensure that their paper is ready for submission.

Criteria 1 to 6 refer to the technical competency of the work and its presentation:

1. The paper's purpose is clear and adequately justified.
2. Specific research questions or hypotheses are clearly stated and subsequently addressed.
3. The science is robust and competent, based on appropriate methods and analysis.
4. A clear distinction is drawn between data presentation and data interpretation, whether or not there are separate sections for each.
5. The paper is data-rich with adequate evidence to support the

inferences and conclusions. Clear arguments explain how data lead to an interpretation.

6. The written arguments, data tables and figures are clear and accessible.

Criteria 7 to 10 refer to the impact, novelty and intellectual value of the paper:

7. The broad, generic importance of the work is adequately explained. The paper addresses theoretical or scientific gaps in understanding, not geographical or stratigraphic gaps *per se*. Studies focused on a particular location or region explain the relevance of the work; for example, in terms of broader scientific questions of relevance to sedimentologists working elsewhere.
8. The work contains novel elements with innovative aims, hypotheses or methods.
9. The paper represents an important advance in the field with outcomes that are significant and that add to our scientific understanding of sedimentology.
10. The material has not been published previously.

## Titles and Abstracts

Modern scholarship is characterised by accelerating research output and searching power that was undreamed of twenty years ago. This means that your work is in competition with many other papers to be found and used. Table of Contents alerts, titles and abstracts are used more than ever by scientists to find relevant work. A good title and abstract are therefore crucial for maximising the visibility and uptake of a paper. However, submitted abstracts are often too long while also failing to provide the key information that potential readers want to know. An abstract should contain the following four pieces of information while being succinct (<300 words) and clear.

- A statement of aims, key questions or hypotheses. *What is this paper about?*
- A rationale that explains the importance of the questions being asked. *Why is this topic important and what is its scholarly context?*
- Brief coverage of the methods and analyses used, key results and important interpretations. *What was done to address the research questions, what was found and what does it mean?*
- An explanation of why these findings are novel and significant. *What has been learned that we didn't know before and why is it of interest to the wider community?*

Similarly, your work will be more appealing and more visible if the title is short, punchy and not parochial. While care must be taken to avoid overstating the generality of your contribution, titles should emphasise the generic value of the work, not its geographical location or stratigraphic position. In some cases the novelty and significance of the work will be tied to a particular location and allowances will be made, but in most cases excessive geographical or chronological referencing is unnecessary. Titles should not be more than 25 words long.

Together, the title and abstract must reveal to potential readers the core ideas and findings in a paper; they should attract relevant readers and convince them to read on.

## Other considerations

A full description of Sedimentology's requirements is given in the author guidelines document on the journal home page (http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1365-3091/homepage/ForAuthors.html).


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The following points highlight some further considerations for submitting authors

- For those who are writing in a second language, scientific excellence remains our main consideration, but the quality of the English text must be sufficient to allow unhindered assessment of the science. Non-English speakers are therefore strongly urged to have a native English speaker check their manuscript prior to submission.
- Sedimentology does not have a strict word or figure limit. Indeed, we are keen to publish data-rich papers. However, submitted papers are often unnecessarily long. These typically are characterised by one or more of the following: rambling, poorly constructed sentences; incidental asides and arguments; excessively long descriptive sections; figures that add very little to the key arguments; a desire to present every scrap of relevant data collected during a project, without critical consideration of its value in relation to the key themes of the paper; failure to use tables to represent straightforward factual information. We will return papers that are excessively long and editors will generally try to shorten all manuscripts without compromising the scientific content.
- We are delighted to receive submissions from sedimentologists who have recently completed their doctorate, but it is important that submitted papers are not 'cut and paste' from a thesis document without due attention to construction of a stand-alone paper that is fully justified and where the content is entirely germane to the topic at hand. Thesis chapters very seldom make acceptable research papers without substantial reorganisation and contextualisation.
- We have noticed a slight tendency for unnecessary and excessive self-citation in recent years. While we aim to publish cutting-edge, agenda-setting papers, no scientists work in isolation or are so far ahead of the community that theirs is the only relevant work needed to support an argument. Avoid excessive self-citation and ensure that referencing and scholarship reflects work from other times, groups and nations – many ideas are not new and all rely on earlier work – the original authors should be given credit where appropriate.
- Keep focused. Your paper should contain material relevant to the contextualisation, examination and discussion of a particular research question or questions. Avoid including material that is incidental or which forms a substantial aside. Ask yourself whether each part of the paper is relevant and work hard to help the reader stay focused on your key themes and messages.
- Ultimately, eschew obfuscation and warrant that your academic endeavour is accessible to a plethora of sedimentological scientists. That is, do not use an unnecessarily complicated writing style - ensure that your work can be easily read and understood by colleagues from around the world.

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# STUDENT CORNER

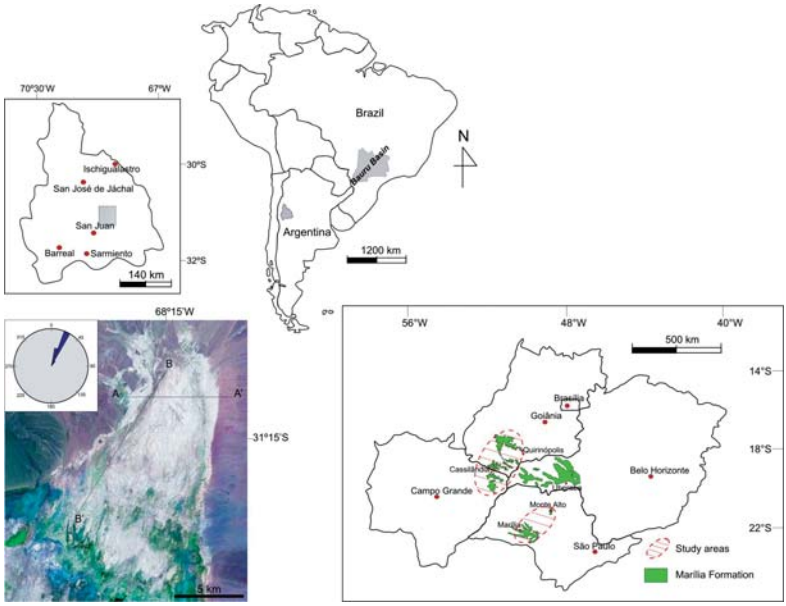
## Sediment and paleosol interactions in eolian sand sheet areas

I am currently developing my PhD research focusing on ancient and modern sediment and paleosol/soil interactions in eolian sand sheet areas under the supervision of Professor Giorgio Basilici at the University of Campinas, in the Department of Geology and Natural Resources (DGRN). One of the primary goals of my research is to understand which environmental factors act to promote soil development and principally those that operate to withhold its development in eolian sand sheet areas.

The methods of study are quite variable and encompass facies and paleopedological, geochemical, clay mineral, and stable isotope analysis applied to the ancient study case; and facies analysis, geomorphological mapping, petrographic characterization, and OSL dating applied to the modern case. The ancient study case consists of the sedimentary succession of the Late Cretaceous Adamantina and Marília formations which are located in the southeastern Brazil (Figure 1), and represent the upper units of the stable intracratonic Bauru Basin. The modern study case is represented by La Salina eolian sand sheet which is located in the province of San Juan (central-western Argentina), in the tectonic intermontane Tulum depression (Figure 1).

The Adamantina and Marília formations are an interesting case to understand the interactions between sedimentation and paleopedogenesis in eolian sand sheet successions because they show cyclic interbedding of eolian deposits and paleosols, and more than 66% of the thickness of these units is composed of paleosols. The two units are ca. 170 m thick and show the same sequential organization which has been subdivided into three architectural elements: paleosols, wind-ripple-dominated eolian sand sheet deposits, and ephemeral river deposits (Figure 2).

The La Salina is a small rain shadow area created by a 4,000-m tall Andean Cordillera which is located to the west of the area. This is a modern example which can serve for improving our understanding about the sequential organization of the ancient eolian sand sheet succession. Eolian deposits cover ~125 km$^2$ and are transitional to a *playa* system to the south.

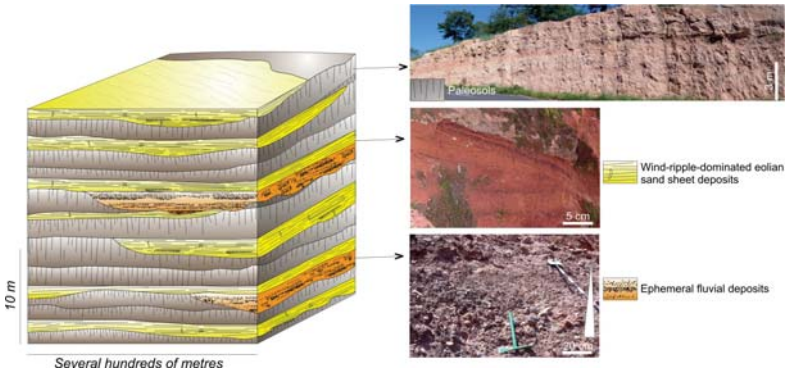



*Location of the study areas.*

Sedimentological analysis in the field was carried out following two transects that are transversally (A-A') and parallel (B-B') oriented to the prevailing wind direction (Figure 1, satellite image). Morphological analysis has revealed the dominance of eolian bedforms (e.g., wind ripples, megaripples, *nebkhas*) which are only laterally interrupted by thin mud deposits associated with occasional rainwater flooding (Figure 3A and B).

The outcropping sedimentary succession is 4 m thick, and is exposed along a dry river bank. Sedimentary facies are composed of translatent wind-ripple strata and mud strata (Figure 3C), which show vertical interbedding. OSL dating indicates that the onset of eolian deposition was about 3.6 ± 0.3 ka BP with an average sedimentation rate of 86.1 cm/ka. Neither superficial nor sedimentary analysis found any trace or feature indicating soil development in the sand sheet area.

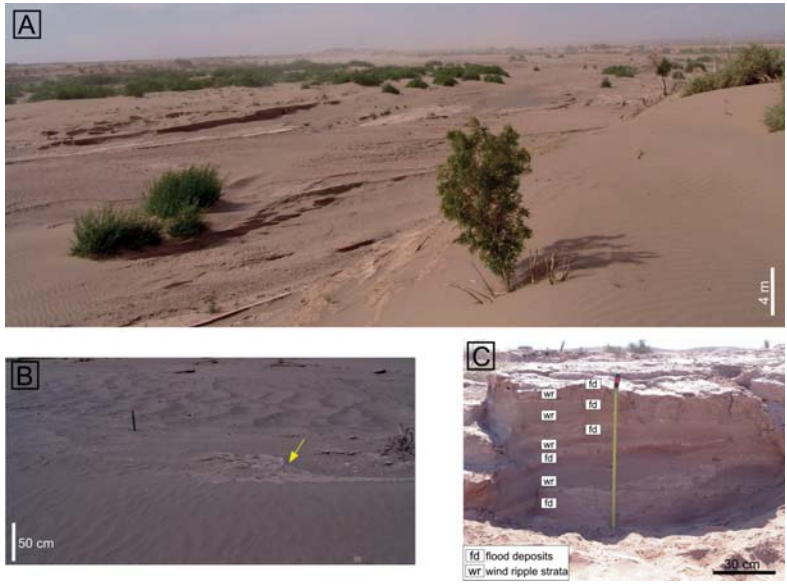
The concepts of morpho-depositional stabilities and instabilities during the construction of the geological bodies are applied to explain the dissimilarity of the sedimentary record found in both areas. The morpho-depositional surface of an eolian sand sheet can either be stable and subject to pedogenesis or unstable such that it is affected by deflation or sedimentation processes (Figure 4). In the Adamantina and Marília formations, wind-ripple-dominated eolian sand sheet deposits represent the phase of instability and construction of the eolian sand sheet, and this phase consists mainly of translatent wind-ripple strata. Otherwise, the paleosols represent the stable phase in the formation of the eolian sand sheet, when the



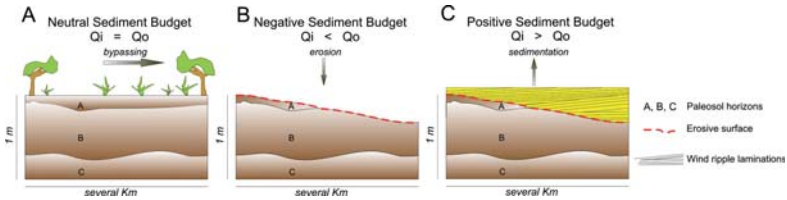

*Architectural elements of the Adamantina and Marília formations.*

unavailability or bypassing of sediments, allied with the development of a vegetation covering, led to the absence of sedimentation and erosional processes.

Differently from Late Cretaceous succession, the La Salina only records the instability phase. Probably, the high creation of accommodation space in the tectonic active intermontane Tulum




*La Salina eolian sand sheet. A) General view of the sand sheet surface. B) Wind ripples in the foreground and megaripples in the background. Arrow indicates the occurrence of thin mud deposits. C) Vertical interbedding of translatent wind-ripple strata and mud strata.*




*Morpho-depositional stability during a more humid paleoclimate phase and sediment bypassing in (A) which greatly favored soil development. The onset of a more arid phase caused the disappearance of the vegetation cover and the undersaturated sediment conditions in (B) led to the erosion of soils and sedimentation in (C) when the concentration of sediment reached a positive budget state.*

depression allied with high availability of sediments constitute the main controlling factors to the instability of this eolian sand sheet and are probably the main causes for the absence of any kind of soil development. Conversely, the low rate of subsidence in the Bauru Basin (~1.1 cm/ka) negatively controlled the preservation of the eolian deposits in the Adamantina and Marília formations, since it fostered intense pedogenesis during periods of topographic stability and the consequently greater paleosol profiles recorded in the sedimentary succession.

The future goal of my research comprises the development of a genetic model that takes into account the variations in climate, tectonic configuration and sediment availability for both areas and helps to better elucidate the role of these factors in the construction, accumulation and preservation of sediments and paleosols in eolian sand sheet successions.

## For further information, please see:

Basilici, G., Dal' Bo, P.F.F., 2010. Anatomy and controlling factors of a Late Cretaceous aeolian sand sheet: The Marília and the Adamantina formations, NW Bauru Basin, Brazil. Sedimentary Geology 226, 71-93.

Dal' Bo, P.F.F., Basilici, G., Angélica, R.S., 2010. Factors of paleosol formation in a Late Cretaceous eolian sand sheet paleoenvironment, Marília Formation, southeastern Brazil. Palaeogeography, Palaeoclimatology, Palaeoecology 292, 349-365.

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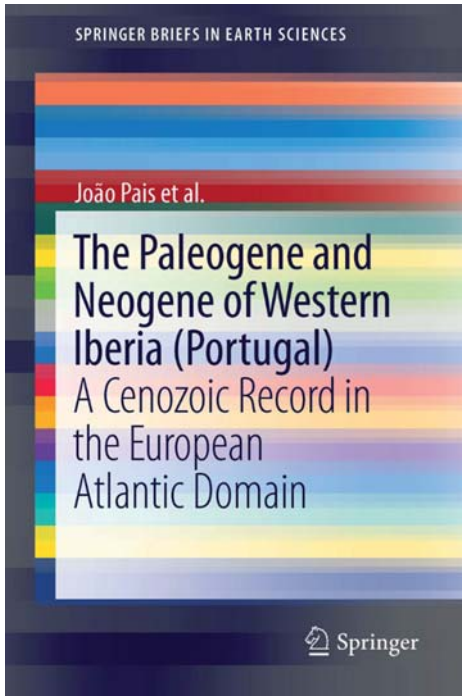
# BOOK REVIEW

«The Paleogene and Neogene of Western Iberia (Portugal). A Cenozoic record in the European Atlantic domain» Pais, J. (coord.); Cunha, P. P.; Pereira, D.; Legoinha, P.; Dias, R.; Moura, D.; Brum da Silveira, A.; Kullberg, J. C.; González-Delgado, J.A. & (2012) - SpringerBriefs in Earth Sciences, Springer, Series ID: 8897, 1st Edition., 1 vol., 158 pages., ISBN 978-3-642-22400-3




The book includes a general description of the Portuguese Cenozoic basins in the Iberian tectonic context. The main stratigraphic units, including sedimentological, stratigraphical and palaeontological data, are characterized. Correlations between different sectors are presented as well as general paleogeographical evolution maps. The volume includes a general bibliography concerning the Cenozoic of Portugal.

http://www.springer.com/earth+sciences+and+geography/geology/book/978-3-642-22400-3

# IAS STUDENT GRANT APPLICATION GUIDELINES

## Application

The application should be concise and informative, and contains the following information (limit your application to 1250 words max.):

- Research proposal (including Introduction, Proposal, Motivation and Methods, Facilities) – max. 750 words
- Bibliography – max. 125 words
- Budget – max. 125 words
- Curriculum Vitae – max. 250 words

Your research proposal must be submitted via the Postgraduate Grant Scheme application form on the IAS website before the application deadline. The form contains additional assistance details for completing the request. Please read carefully all instructions before completing and submitting your application. Prepare your application in 'Word' and use 'Word count' before pasting your application in the appropriate fields.

Recommendation letter (by e-mail) from the PhD supervisor supporting the applicant is mandatory, as well as recommendation letter (by e-mail also) from the Head of Department/ Laboratory of guest institution in case of laboratory visit.

Please make sure to adequately answer all questions.

## Deadlines and notifications

Application deadlines:
1st session: March, 31
2nd session: September, 30
Recipient notification:
Before June, 30
Before December, 31

## Guidelines for letter from supervisor

The letter from the supervisor should provide an evaluation of the capability of the student to carry out the proposed research, the significance and necessity of the research, and reasonableness of the budget request. The letter must be sent directly to the Treasurer of the IAS by e-mail before the application deadline.

## Application Form

Research Proposal (max. 750 words)
Title: .....
Introduction (max. 250 words): .....
Introduce briefly the subject of your PhD and provide relevant background information; summarise previous work by you or others (provide max. 5 relevant references, to be detailed in the 'Bibliography' field). Provide the context for your PhD study in terms of geography, geology, and/or scientific discipline.
Proposal (max. 250 words): ...
Describe clearly your research

proposal and indicate in what way your proposal will contribute to the successful achievement of your PhD. Your application should have a clearly written hypothesis or a well-explained research problem of geologic significance. It should explain why it is important. Simply collecting data without an objective is not considered wise use of resources.

Methods (max. 125 words): .....

Outline the research strategy (methods) that you plan to use to solve the problem in the field and/or in the laboratory. Please include information on data collection, data analyses, and data interpretation. Justify why you need to undertake this research.

Facilities (max. 125 words): .....

Briefly list research and study facilities available to you, such as field and laboratory equipment, computers, library.

Bibliography (max. 125 words)

Provide a list of 5 key publications that are relevant to your proposed research, listed in your 'Introduction'. The list should show that you have done adequate background research on your project and are assured that your methodology is solid and the project has not been done already. Limit your bibliography to the essential references. Each publication should be preceded by a '*'-character (e.g. *Surlyk et al., Sedimentology 42, 323-354, 1995).

Budget (max. 125 words)

Provide a brief summary of the total cost of the research. Clearly indicate the amount (in Euro) being requested. State specifically what the IAS grant funds will be used for. Please list only expenses to be covered by the IAS grant.

The IAS will support field activities (to collect data and samples, etc.) and laboratory activities/analyses. Laboratory activities/analyses that consist of training by performing the activities/analyses yourself will be considered a plus for your application as they will contribute to your formation and to the capacity building of your home institution. In this case, the agreement of the Head of your Guest Department/Laboratory will be solicited by automated e-mail.

Curriculum Vitae (max. 250 words)

Name, postal address, e-mail address, university education (degrees & dates), work experience, awards and scholarships (max. 5, considered to be representative), independent research projects, citations of your abstracts and publications (max. 5, considered to be representative).

Advise of Supervisor and Head of Guest Department/Laboratory

When you apply for a grant, your PhD supervisor will receive an automated e-mail with a request to send the IAS a letter of recommendation by e-mail. You should, however, check with your supervisor everything is carried out the way it should be. It will be considered as a plus for your application if your PhD supervisor is also a member of IAS.

Supervisor's name: .....

Supervisor's e-mail: .....

If you apply for laboratory analyses/activities, please carefully check analysis prices and compare charges of various academic and private laboratories as prices per unit might differ considerably. Please first check whether analyses can be performed within your own University. If your University is not in a position to provide you with the adequate analysis tools, visiting another lab to conduct the analyses yourself strengthens your application considerably as it

contributes to your formation and to capacity building of your home University. Please check with the Head of Department/Laboratory of your guest lab to assure its assistance during your visit. You should fill in his/her name and e-mail address to solicit his/her advise about your visit.

Name of Head of guest Department/Laboratory: .....

E-mail address of Head of Guest Department/Laboratory: .....

Finally, before submitting your application, you will be asked to answer a few informative questions by ticking the appropriate boxes.

- is your supervisor a member of IAS
- was this application your own initiative
- did you discuss your application with your Supervisor
- did you already had contact in the past with the Head of the Guest Department/Laboratory (if appropriate)

# CALENDAR

## Twentieth Annual Conference of the Sedimentological Society of Egypt

*18th February 2012*
*Ain Shams University*
*Egypt*

*Bothaina M. Moussa ( Secretary General) DRC*
*bothm@maktoob.com*

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## IAVCEI - 4th International Maar Conference: A Multidisciplinary Congress on Monogenetic Volcanism 2012 *

*20th–24th February 2012*
*Auckland*
*New Zealand*

Karoly Nemeth
Volcanic Risk Solutions,
CS-INR, Massey University, Palmerston North,
New Zealand
k.nemeth@massey.ac.nz

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## 20th Meeting of Swiss Sedimentologists

*25th February, 2012*
*Fribourg,*
*Switzerland*

*André Strasser*
*Department of Geosciences*
*University of Fribourg*
*www.swisssed.ch*

## DEEP SEA CORALS (ISDSC5) - 2012 *

*2nd-7th April 2012*
*Amsterdam*
*The Netherlands.*

Tjeerd Van Weering
NIOZ, the Royal Netherlands Institute for Sea Research
tjeerd.van.weering@nioz.nl
www.deepseacoral.nl

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## Course On Seagrass Carbonate Production: from modern to fossil environment

*30th April – 4th May 2012*
*Mallorca*
*Spain*

Marco Brandano
marco.brandano@uniroma1.it
Guillem Mateu-Vicens
www.museucienciesnaturals.org

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## European Seismological Commission 33rd General Assembly

*August 19-24, 2011*
*Moscow,*
*Russia*

tuchkova@ginras.ru

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## 29th IAS MEETING OF SEDIMENTOLOGY *

*10th-13th September 2012*
*Schladming*
*Austria*

Hans-Jürgen Gawlick
University of Leoben
IAS2012@unileoben.ac.at
www.sedimentologists.org/ims-2012

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## GV and SEDIMENT «Of Land and Sea: Processes and Products»

*23rd - 28th September 2012*
*Hamburg*
*Germany.*

Christian Betzler
gv-hamburg2012@gv-conference.de
www.gv-hamburg2012.de/.

## 86° CONGRESSO NAZIONALE DELLA SOCIETÀ GEOLOGICA ITALIANA*
## Il Mediterraneo un archivio geologico tra passato e presente

*18th -20th September 2012*
*Arcavacata di Rende, Italy*

Salvatore Critelli
critelli@unical.it
www.socgeol.it

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## AT THE EDGE OF THE SEA: SEDIMENTS, SEA LEVEL, TECTONICS, AND STRATIGRAPHY AS MAIN ELEMENTS OF A MULTIDISCIPLINARY APPROACH AND CORRELATION IN STUDYING QUATERNARY CHANGES *

*26th-30th September 2012*
*Alghero*
*Italy*

Mauro Coltori
Università di Siena
mauro.coltorti@unisi.it

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## 3RD CONFERENCE TERRESTRIAL MARS ANALOGUES*

*25th - 27th October 2012*
*Marrakech*
*Ibn Battuta Centre*
*Morocco*

Gian Gabriele Ori
ggori@irsps.unich.it
www.ibnbattutacentre.org

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