



2<sup>th</sup> ANNOUNCEMENT

# TIAC'07

III INTERNATIONAL SYMPOSIUM ON TECHNOLOGY OF SEAWATER INTRUSION INTO COASTAL AQUIFERS

II INTERNATIONAL SYMPOSIUM ON COASTAL AQUIFERS AND DESALINATION PLANTS

PROMOTED BY



club del agua  
subterránea

ORGANISED BY



Instituto Geológico  
y Minero de España



RHyGA

Recursos Hídricos y Geología Ambiental  
Grupo de Investigación RNM189



UNIVERSIDAD  
DE ALMERÍA

WITH THE SUPPORT OF



United Nations  
Educational, Scientific and  
Cultural Organization

UNESCO **Contribution to UNESCO / IHP VI**

The Symposia provide a contribution to the implementation of the Groundwater Component of the IHPVI 2002-2007 Programme - Water Interaction Systems at Risks and Social Challenges



International  
Hydrological Programme  
of UNESCO



Almería

16th - 19th October 2007

[www.ual.es/GruposInv/RecHid/](http://www.ual.es/GruposInv/RecHid/)

## PLACE AND DATES

The congress will take place in Almeria (Spain) from October 16 to 19, 2007. Sessions will be held in meeting rooms at the TRYP INDALO HOTEL.



The hotel is located on Mediterráneo Avenue, a main street in the city, only ten minutes from the old part of town. The beach is just three kilometers from the hotel. There is a bus stop right in front of the building. Almería airport is only eight kilometers away, a trip of just 10 minutes by car.



Almería faces the sea and is backed by mountains, providing it with warm winters and temperate summers. The population is currently around 200,000 inhabitants. Located on the bay of the same name, Almería is a luminous city whose origins go back thousands of years. The Alcazaba (an ancient fortress) presides over the city, offering an extraordinary view of the city and port from its walls. At the foot of the Alcazaba is the most typical neighbourhood of the city, La Chanca, with multi-coloured picturesque houses.

As the city of Almería faces the sea, the port is an integral part of the town and of its daily life. In the port itself, the old ore-loading wharf known as “El Cable” is of special interest. In the centre of town, the Cathedral was built as a fortress for protection against pirate attacks, so its main points of interest are inside the building.





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*Rey D. Jaime 2006 Environmental Protection Award. Professor Emeritus of the Technical School of Mines (UPM)*

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*Director of Hydrogeology and Groundwater.  
IGME President of CAS (Spanish Groundwater Club)*

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*Full Professor, University of Almería UAL. Past-President of CAS*

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*Research Professor. IGME*

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*University of Almería, SPAIN*

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Clifford I. Voss	<i>U.S. Geological Survey, UNITED STATES</i>
Kristine Walraevens	<i>Laboratory for Applied Geology and Hydrogeology, BELGIUM</i>



### III INTERNATIONAL SYMPOSIUM ON THE TECHNOLOGY OF SEAWATER INCURSION IN COASTAL AQUIFERS (TIAC'07)

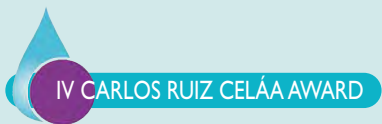
- Geophysical Techniques
- Mathematical Simulation Models
- Geochemical and Isotopic Studies
- Water Extraction and Aquifer Monitoring
- Recharge of Coastal Aquifers
- Recovery of Salinized Coastal Aquifers

### II INTERNATIONAL SYMPOSIUM ON COASTAL AQUIFERS AND DESALINATION PLANTS

- Problems Associated with Water Extraction
- Monitoring of Exploitation



- Deadline for complete manuscript, after review by Scientific Committee: July 15, 2007
- Deadline for early registration: July 15, 2007



*The National Association of Mining Engineers (Groundwater Specialty Group) announces the IV Carlos Ruiz Celáa Award for hydrogeology, awarded in accordance with the following regulations:*

#### **First**

All works accepted by the Scientific Committee of TIAC'07 are eligible for this award.

#### **Second**

Particular attention will be paid to originality or innovation, technical and scientific aspects, applicability, and general interest.

### Third

A single prize of 1200 € and a certificate will be awarded to the most deserving article based on a majority vote of the jury. An announcement will be made of the finalists on October 16, 2007 in Almería in the main congress hall of TIAC'07. The results of the jury and the presentation of the award will take place during the Gala dinner of TIAC'07 on October 18, 2007.

### Fourth

The award cannot be declared vacant nor divided between two or more articles.



The official languages of the congress are Spanish and English (although presentations in French are also accepted). All the talks and sessions will have Spanish<->English simultaneous interpretation.



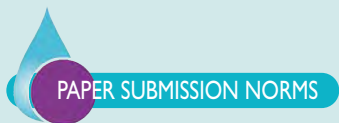
Normal fee	400 €
Early fee (before 15th July)	350 €
Authors of accepted papers (one per paper)	300 €
Students and Accompanying Persons	100 €

These rates include attendance at the work sessions, reception ceremonies, coffee-breaks and the Symposium Dinner. The **pre-event excursion** is not included: the cost is **250 euros**, including transport, meals and one night in a hotel in Almuñecar.

Registration payment should be made by bank transfer to "Club del Agua Subterranea" with a reference made to TIAC; don't forget to indicate your name. The account is: CAJAMAR nº 3058 0130 12 2720008171.



Viajes Alcazaba travel agency is in charge of hotel reservations. They can be reached by telephone at +950-621077, by fax at +950-621313, or by e-mail [viajesalcazaba@viajesalcazaba.com](mailto:viajesalcazaba@viajesalcazaba.com)



Standards for are specified on the website at [www.ual.es/GruposInv/RecHid/](http://www.ual.es/GruposInv/RecHid/)

The deadline for reception of completed works, after revision, is June 15, 2007. Submissions must be made on CD-ROM and a black and white hard copy in accordance with the norms to the following address:

Gerardo Ramos, IGME  
Ríos Rosas 23  
E-28003 MADRID



## TUESDAY, OCTOBER 16

- 08:00h-09:30h Inscription and documentation collection  
10:00h-11:00h Open Ceremony and Inaugural Conference by Prof. **J. Bear**  
"Sea water intrusion in coastal aquifers"  
11:00h-11:30h Coffee break  
11:30h-14:00h Oral presentations  
16:00h-16:45h Dr. **M. Goldman**  
"Application of deep regional geoelectromagnetic soundings for delineating saline groundwater in the Judea Desert and the Arava Rift Valley aquifers in Israel"  
16:45h-18:00h Oral presentations  
18:00h-20:30h First Round Table

## WEDNESDAY, OCTOBER 17

- 09:00h-09:45h Keynote by Dr. **L. Araguás**  
"Isotope Studies in Coastal Aquifers"  
09:45h-10:45h Oral presentations  
10:45h-11:15h Coffee break



- 11:15h-14:00h Oral presentations  
 16:00h-16:45h Keynote by Dr. **T. Rodríguez Estrella**  
 "The Exploitation of Coastal Aquifers for Supplying Desalination Plants"  
 16:45h-18:00h Oral presentations  
 18:00h-20:30h Second Round Table

### THURSDAY, OCTOBER 18

- 09:00h-17:00h Fieldtrip. Responsible person: Francisco Sánchez Martos. Visits to Desalination plants of Almería (Andarax delta) and Ramblamorales  
 19:00h-20:30h Annual Meeting of the Spanish Work Group of Project 513 (GTE-513) of the UNESCO International Geoscience Programme on "Karst Aquifers and Water Resources"  
 21:00h-23:30h Ceremony for the Presentation of the CARLOS RUIZ CELÁA Award.  
 Gala Dinner

### FRIDAY, OCTOBER 19

- 09:00h-09:45h Keynote by Prof. **M. Sherif** "Artificial Recharge of Coastal Aquifers"  
 09:45h-10:45h Oral presentations  
 10:45h-11:15h Coffee Break  
 11:15h-13:00h Oral presentations  
 13:00h-14:00h Keynote by Dr. **G. Oude Essink**  
 "Assessing the salinisation in the delta of Zeeland due to climate change and sea level rise: monitoring and modelling: Southern Netherlands". Closing Ceremony

There will be an accompanying programme that includes trips to monuments and other sights in the city and to the old movie studio installations where many classic motion pictures were filmed.



## PRE-CONGRESS FIELDTRIP

FIELD TRIP TO THE AQUIFERS ON THE EASTERN COAST OF ANDALUSIA BETWEEN MÁLAGA AND ALMERÍA. Coordinator: Juan Carlos Rubio Campos (IGME, Granada)

SUNDAY OCTOBER 14, 2007

- 9:00h **Leave Málaga**
- 09:30h-11:30h **Visit Río Vélez coastal detrital aquifer (Málaga, Spain)**

Organizers:

García Aróstegui, J. L. IGME

Benavente Herrera, J. Univ. Granada

The field trip will address such questions as alterations to the hydrological regime due to the construction of the Viñuela Dam on the Vélez River aquifer; management practices foreseen regarding surface and groundwaters, and the re-use of urban wastewater. Additional topics include steps to improve knowledge of the aquifer and joint management of water resources, processes of seawater intrusion-extrusion, and the use of aquifer resources in combination with the Viñuela Dam and urban wastewater re-use.

- 12:00h-14:00h **Trip to the coastal aquifers of Nerja, Cantarriján, Cerro Gordo, and Punta de la Mona (Málaga-Granada)**

Organizers:

Andreo, B. Univ. Málaga

Carrasco, F. Univ. Málaga

Liñan, C. Univ. Málaga

Pérez, I. Univ. Málaga

The fieldtrip will consider the aquifers, their relationship with the Sierra de Almirajara, and hidden outlets to the sea.

- 14:30h-16:00h **Lunch in La Herradura (Granada)**

- 16,30h-18,30h **Trip to the coastal aquifer of Almuñecar**

Organizer:

Benavente Herrera, J. Univ. Granada.

This trip will examine the Almuñecar aquifer and the problems of sea-water incursion, which are seasonal due to extensive summer pumping.

Overnight stay. Night of October 14, 2007.  
Almuñecar (Granada)

*MONDAY, OCTOBER 15, 2007*

9:30h

Leave Almuñecar

10:00h-12:30h

Trip to the coastal aquifer of Motril-Salobreña

Organizers:

Calvache Quesada, M<sup>a</sup> L. Univ. Granada

Rubio Campos, J.C. IGME

Martín Rosales, W. Univ. Granada

González Ramón, A. IGME

Lopez Chicano. Univ. Granada

The trip will examine the coastal aquifer of **Motril-Salobreña** and the possible influence on the aquifer of the recent construction of the Rules Dam in altering recharge by surface runoff and by irrigation return flow.

13:00h-15:00h

Trip to the coastal aquifer of Calahonda and to the alluvial aquifer of Castell de Ferro

Organizers:

Pulido Bosch, A. Univ. Almería

Rubio Campos, J.C. IGME

Calvache Quesada, M<sup>a</sup> L. Univ. Granada

Calaforra Chordi, JM Univ. Almería

González Ramón, A. IGME

The fieldtrip will include a discussion on hydrogeological behaviour of the carbonate rocks in the Aguila and La Rijana hills and of the problems regarding seawater intrusion in the Castell aquifer.

15:00h-16:30h

Lunch in Calahonda (Granada)

17:00h-18:00h

Trip to the Albuñol aquifer

Organizers:

González Ramón, A. IGME

Luque Espinar, JA. IGME

This trip examines the tectonic window in Albuñol and the detrital aquifer directly related to the aquifer.

19:00h

Arrival to Almería

# BOLETIN DE INSCRIPCIÓN PRELIMINAR

TIAC'07

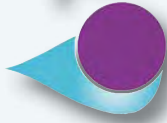
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Fax \_\_\_\_\_ E-mail \_\_\_\_\_

Asistencia a las jornadas  COMUNICACIÓN

Autores \_\_\_\_\_ Título \_\_\_\_\_ Firma \_\_\_\_\_  
Excursión  Fecha \_\_\_\_\_

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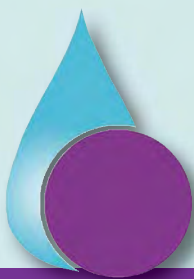


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