# Centre of Hydrogeology of the University of Malaga (CEHIUMA) Spanish Geological Survey (IGME)

HYDROKARST 2010 is the 4<sup>th</sup> edition of a course given by researchers from the Partnership Association "Advanced Hydrogeological Studies", constituted of the University of Málaga Hydrogeology Group (GHUMA) and the Spanish Geological Survey (IGME), on methods applied to hydrogeological research into carbonate (karst) aquifers.

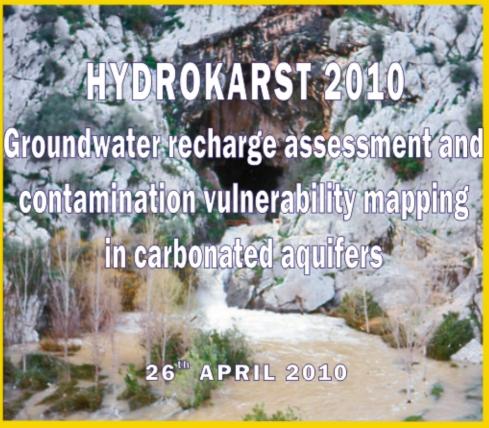
# More information from the Organizing Secretariat:

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4<sup>th</sup> INTERNATIONAL SYMPOSIUM ON KARST

## INTRODUCTION

Carbonate (karst) aquifers constitute an important proportion of the world's land surface. In Europe, for example, one third of the territory contains this type of aquifer, while in some countries over 50% of water supplies are obtained from karst systems. Carbonate aquifers are heterogeneous, presenting diverse forms of recharge (diffuse or concentrated); response times to recharge may be very short, and the characteristics of groundwater flow vary, from fissured aquifers or diffuse flow types to karst aquifers, with conduit flow systems.

This fourth edition of the HYDROKARST course is aimed at technicians, graduates and engineers, demonstrating two methods developed by the Hydrogeological Group of the University of Málaga to determine aquifer recharge (by the APLIS method) and vulnerability mapping (by the COP method).

These methods are of potential interest to researchers and decision takers concerned with the evaluation, protection and management of water resources in carbonate aquifers.

### INFORMATION

Only 30 places are available for this course and the criteria for reserve will be the order of inscription arrival

Hydrokarst fee: 60 euros

An account number to transfer the inscription costs is open in the bank UNICAJA, in the Office located at Marina square no 3, E-29015 Málaga, Spain

For national (Spanish) payments the account number is: 2103 0146 96 0030028661

For international payments, the IBAN Code is: ES24 2103 0146 96 0030028661 and SWIF Code: UCJAES2M.

As concept of the transfer it should be noted the following reference: 80301416, HYDROKARST

### PROGRAMME

- 09:00 10:00 Methods for groundwater recharge assessment in carbonate (karst) aquifers.

  Bartolomé Andreo & J.J. Durán
- 10:00 10:30 Coffee break
- 10:30 13:00 Practical session on groundwater recharge assessment in carbonate (karst) aquifers.
   A. I. Marín & J.M. Vías
- 15:00 16:00 Methods for contamination vulnerability assessment in carbonate (karst) aquifers. B. Andreo
- 16:00 16:30 Coffee break
- 16:30 19:30 Practical session on vulnerability mapping in carbonate (karst) aquifers (COP method).

  J.M. Vías & A.I. Marín