

Atti di Convegni

New Trends in Water and Environmental Engineering for Safety and Life: Eco-compatible Solutions for Aquatic Environments

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session a – water resources management

a1) irrigation and drainage

Direct measurement of vegetation resistance in prototype scale
A. Armanini, M. Righetti, P. Grisenti, F. Nadalini

Potential of skimming wells for extracting relatively-fresh groundwater from unconfined aquifers underlain by saline groundwater
M.N. Asghar, M.M. Saeed, M. Ashraf, A.S. Qureshi

Irrigation in Vojvodina - water quality problems
S. Belic, R. Savic

Water quality improvement in drainage networks
V. Bixio

Effects of ponded depth treatment on water balance in paddy fields
S.O. Chung

The control of transport processes by the analysis of flow field conditioned by tile drains
M.L. Deangelis

Agro-hydrological and hydraulic simulation models for supporting decisions in irrigation management
G. D'Urso, A. Santini

Numerical analysis of the transport and fate of nitrogen in the soil
A. El-Sadek, J. Feyen

How to schedule drip irrigation with a brackish water in a purpose of a sustainable system
A. Leila, H. Daghari, M. Maâlej

Adoption and feedback provision on irrigation technologies among farmers in Nigeria
O.I. Oladele

Traditional methods of irrigation and water harvesting in Iran
A. Rafiei Emam, A.N. Rafiei Emam

Water institutions for shared irrigation management in Pakistan
G.M. Talpur, Y. Memon

a2) groundwater management

The implementation of a flux model for the application of groundwater integrated investigation concept
L. Alberti, D. Bianchi, S. Ceccon

Groundwater quality in agricultural area of Yugoslavia
A. Belic

Groundwater management in urban areas in Germany
W.G. Coldewey, H. Kories, J. ten Thoren

Comparison of management scenarios in a regional groundwater system with unstable water table
E. Colombo, M.L. Deangelis, E. De Bortoli, M.G. Tanda

High nutrient and chloride loads in polder areas due to groundwater exfiltration
P.G. B. de Louw, J. Griffioen

Modeling of nitrate leaching from artificially drained soil
A. El-Sadek, M. Radwan, J. Feyen

The problem of the groundwater rise in Milan area
V. Francani, L. Alberti, P. Trafiletti

Groundwater management in central desert of Iran
M. Khayyat Kholghi

Vertical migration of hydrocarbons in the vadose zone: estimation methodologies of characteristic times
B. Molino, G. Albergo, A. Biscione, M. Pannone

a3) desertification and draught

Runoff harvesting system as part of desertification prevention and sustainable development of desert ecosystems
G. Carmi, P. Berliner

Environmental impacts of climate change in the Mediterranean: EC actions to mitigate drought and prevent desertification
D. DeWrachien, R. Ragab, A. Giordano

Desertification sensitivity in Sicily (southern Italy)
M. Iannetta, G. Schino, F. Borfecchia, S. Grauso, L. Giordano, F. Giordano, M. Sciortino, F. Felici, L. De Cecco, S. Martini, G. Bonati

Characterization of areas sensitive to desertification in southern Italy
G. Ladisa, M. Todorovic, G. Trisorio-Liuzzi

Regional water deficit as result of droughts
Milica Rajic, M. Rajic

Early warning of drought: development of a drought bulletin for Sicily

G. Rossi, A. Cancelliere

Extending problems concern water resources in transition period in Azerbaijan regard to health and safety
M. Teymurov

a4) political and economical aspects of water management

Adoption of environmental standards in the water sector in Egypt
B. Attia, M. Tawfik

EMAS implementation in hydropower plants
C. Comoglio

Integrated water resources management and politics: case-study of Ethiopia
C. Corona

Water reservoir management based on model of self-cleaning
L. Frolova, A. Zakirov

Legal pluralism and women's access to and control over water resources
S. Gul

Integrated water resources management towards long-term water security
in the Mediterranean
A. Hamdy, C. Lacirignola, G. Trisorio-Liuzzi

Decision-making on restoration of the polluted freshwater lakes
T. Koroleva

Problems of sustainable development of natural resources in arid of zones (on an example of Uzbekistan)
R.A. Kulmatov, A. Azizov

Scope for privatisation of water supply in India: social and economic aspects
M. Kulshrestha, A.K. Mittal

Normalized method limits: application to the Basento - Camastra
and Agri water systems
V. Mangone, L. D'Anisi, R. Ermini, R. Giugliano

Strategies for sustainable development of water resources systems
E.M. Mendiondo, J.B. Valdés

Use of economic measures for conservation flow in upstream area
N. Shirakawa, N. Tamai

Rieti's district area plan
P. Ziani, A. Pretner

a5) remote sensing applications in water management

GIS is a powerful tool to assess the performance of a hydrological model
A. Abu El-Nasr, J. Feyen, J. Berlamont

Applications of airborne laser scanning for flood hazard areas determination
F. Belloli, R. Guercio, M. Marsella, M. Silvestri

Using electromagnetic sensing technique for assessing soil salinity and canal seepage
F. Cassel S. , D. Zoldoske, T. Jacobsen, E. Norum

Land use and water quality relationship evaluation by using GIS
C. Cavuoti, D. Caniani, I.M. Mancini, A. Sole, S. Masi

Relation between spatio-temporal distribution of precipitations and vegetation dynamics using remote sensing images
G. Ciraolo, G. La Loggia, C. La Mantia, A. Maltese

Prediction of pressure heads in water distribution networks with cokriging
R. Guercio, R. Magini, I. Pallavicini

a6) architecture and planning of fluvial and coastal landscape

Fluvial landscape evaluation: a method of analysis suitable to eco-compatible planning
A. Braioni, M. G. Barioni

Spatio-temporal domains of ecological processes relevant to planning in ephemeral streams landscapes
P. Mairota, G. Trisorio-Liuzzi

The new waterfront of Civitavecchia
A. Noli, P.F. Capolei

The costal valued landscape reconstruction: the case of San Remo (Italy)
M. Tira, M. Tiboni, B. Badiani

session b - protection from water-related threats

b1) floods and land safety

Using two methods to split the total discharge in its components
A. Abu El-Nasr, J. Feyen

Flooding scenarios due to levee breaking in the Po river
F. Aureli, P. Mignosa

Hydrology of a small river basin (Kyan) on Siwalik region in the Kingdom of Nepal
J. K. Bhusal, G. Bhusal

The hydraulic hazard map of the Pisa Province Master Plan
G. Bracci, P. Chirizzi, A. Conti, M. Della Maggesa, G. Testa

Semi-analytical transient analysis of river embankments with a synthetic design hydrograph
I. Butera, M. G. Tanda

Simulation of the great flood of December 1870 in Rome
G. Calenda, L. Calvani, C. P. Mancini

A proposed protective structure from debris flows in eastern Alps
P. Cancelli, P. Recalcati

A new policy in Integrated Water Management in the Netherlands Concept 'Living with floods'
R. Klomp, F. Klijn, M. Vis

Numerical simulation of gradual earth-dam failure
A. Leopardi, E. Oliveri, M. Greco

The diffusive numerical scheme for a real case of dam-break
F. Macchione, G. Viggiani

Regional estimation model of synthetic design hydrographs for the Po river
U. Maione, P. Mignosa, M. Tomirotti

Hydraulic and environmental integrated analysis for the flood defence of the magra river mouth
F. Pittaluga, M. Gonella, C. Rossi

The october 2000 flooding in Valle d'Aosta (Italy): event description and land planning measures for the risk mitigation
S. Ratto, F. Bonetto, C. Comoglio

Impact of debris waves
B. Zanuttigh, A. Lamberti

b2) soil erosion and sediment transport

Sediment removal from cropland runoff by vegetated filter strips
M. Abu-Zreig, R.P. Rudra, M.N. Lalonde, H.R. Whiteley, M.N. Lalonde, N.K. Kaushik

A case study of canal lining in expansive soils of Gadra road sub branch
Y. C. Agrawal

Application and evaluation of four gravel-transport models
J.J. Barry, J. M. Buffington

Analisis of the efficiency of slit-check dams in the mountain region of Versilia basin
M. Catella, E. Paris, L. Solari

Computation of geomorphic parameters via G. I. S. -based algorithms: a support tool in river basin management
P. De Bonis, G. Fattoruso, S. Grauso, A. Peloso, P. Regina

Measurement of particles and liquid velocities in open-channel flow with suspended sediment
C. Di Cristo, M. Greco, M. Muste

The influence of water erosion and sediment transport on the environment

S. Kostadinov

Beginning of bottom sediment transport through the mechanisms of resonance
D. Mirauda, V. A. Copertino

Friction factor variation in a meandering channel
D. Termini

Computation of flow velocity in gravel-bed channels
D. Termini, M. Greco

b3) eco-hydraulics and biology

Finite elements numerical simulations of circulation in a shallow coastal lagoon of Sicily
A. Balzano, G. Ciraolo, G. La Loggia, C. Nasello

Quali-quantitative response of a natural catchment on a daily basis
A. Candela, G. Aronica, G. Viviani

Minimum flow pilot study on Lamone and Savio catchments, Emilia-Romagna region
G. Cassani, M. Gonella

Modelling stream water chemistry using river basin land use characteristics
M. Chandra Sekhar, K. Surender Reddy

A proposed methodology for drawing up water protection plans
M. Giugni, P. Celico, N. Fontana, G. Lombardi

Entropy analysis methodology for the minimum life instream evaluation
M. Greco, D. Mirauda

Cadmium(II) removal from aqueous solutions by ion exchange resins
S. Kocaoba

Habitat integrity and instream flows methodologies
G. La Porta, M. Mearelli, M. Lorenzoni

Method and case studies of stream restoration projects in Austria
H. Mader, P. Mayr, G. Koboltschnik

Development of simultaneous measurement of physical parameters in rivers
H. Mader, P. Mayr, G. Koboltschnik

Artificial flooding of the soil bioengineering test flume at the Wienfluss river
H. Meixner, H. P. Rauch, S. Vollsinger

Hydraulic of block ramp for river restoration
S. Pagliara, D. Dazzini

Modelling of dissolved oxygen and biochemical oxygen demand in river water using a detailed and a simplified model
M. Radwan, P. Willems, A. El-Sadek, J. Berlamont

Identification criteria and definition of quality index for environments with brackish waters
G. Sanavio, M. Lionello, A. Ferronato, M. Ostoich

The rule of environmental laboratories in the protection of water resources a case study in Egypt
T. A. Tawfic

b4) pollution protection and prevention in maritime environment

Water quality monitoring and integrated modelling of sewers, rivers and the coastal area in northern Sardinia
A. Bettin, A. Pretner, G. Parpaiola, M. Gonella

Simulation of the Egyptian coastal ecosystem functions using coupled 3D hydrodynamic-ecosystem model
W. Hamza, P. Ennet, R. Tamsalu

An assessment of the maritime water and sandy beach at the Bulgarian Black Sea region
Y. Iossifova, R. Chaturkova

Decoloration of industrial wastewater by advanced oxidation methods
L. Kos, J. Perkowski

Coastal defenses with an innovative filtration geosynthetics system case study Persian Gulf
R. G. Lugmayr, A. Holgate

Integrated water quality modelling of the Barcelona seafront

P. Malgrat, F. Rivero, F. Castillo, D. Suñer, M. González

Determination of residual polymer in municipal wastewater effluent
P. Pilipenko, H. Odegaard

Daily cycle of ammonium discharge in land-based marine fish farms
L. Reig, J. Oca, J. Camp, R. Flos

The new trends in environmental engineering for protection of water against dispersed pollutants
N. V. Sokolov

session c - urban hydraulics

c1) hydrology and hydraulics of sewer systems

Sediment transport in corrugated pipes
F. Calomino, R. Gaudio, A. Miglio

Management of rainwater infiltration to an urban area (Ruhr district, Germany)
W. G. Coldewey, P. Goebel, W. F. Geiger, S. Fach, H. Kories

Influence of time-space rainfall variability on urban runoff models: the Mostacciano catchment case study
M. Giulianelli, F. Napolitano, F. Russo

Representation of sustainable urban development structures in an urban drainage model
M. Reeves

c2) water quality control in urban catchments

Master plan of Thessaloniki's sewerage network
P. Antonopoulos, B. Tomicic, A. Pretner, A. Bettin

Publicly owned treatment works in the Veneto region-Italy: planning efficiency controls and effluent quality assessments
P. Bertin, I. Pigato, A. Bizzotto, A. Ferronato, M. Ostoich, M. Zennaro, B. Pavoni

A conceptual model for the estimation of loadographs in sewer networks during meteorological events
C. Ciaponi, M. Mutti, S. Papiri

Storm water quality in the Cascina Scala (Pavia, Italy) experimental catchment
C. Ciaponi, M. Mutti, S. Papiri

Experimental and numerical modeling of hydrodynamic separators for stormwater pollution control
R. Guercio, R. Magini, I. Pallavicini

Urban stormwater quantity and quality in the experimental urban catchment of Picchianti
V. Milano, S. Pagliara, F. Dellacasa

Water quality effects of future urbanizations: diffuse pollution loads estimates and control in Mantua's lakes (Italy)
A. Muraca, A. G. Capodaglio, G. Becchi

Control of urban diffuse pollution comparison of us and italian approaches
V. Novotny, G. Bendoricchio, F. Strazzabosco

Analytical probabilistic modeling of urban drainage systems
F. Papa, B. J. Adams

Application of analytical probabilistic models for urban drainage systems analysis
F. Papa, B. J. Adams

Impacts of new water policy and legislation for urban pollution control
G. Pineschi, M. Carere

A model able to estimate the phenomenon of silting of roadside gully pots
G. Silvagni, F. Volpi

c3) remote sensing and real time control in urban hydraulic networks

Evaluation of the water level overshooting determined by real time controlled gates in sewer systems
A. Campisano, C. Modica

Real time control and management of the urban drainage system in the town of Genova
D. Coniglio, A. Molini, P. La Barbera, L.G. Lanza

Real time forecasting runoff in urban hydrological basins by input-output dynamic neural network
O. Giustolisi, P. Piro, F. Frega

c4) rehabilitation of sewer systems

Performance indicators for design and management of urban drainage systems
S. Artina, G. Becciu, E. S. Bottazzi, M. Maglioni, A. Paoletti, D. Rizzitiello, U. Sanfilippo, S. Sgroi

An index for environmental impact of urban drainage systems on receiving water bodies
G. Becciu, E.S. Bottazzi, A. Paoletti, U. Sanfilippo, D. Rizzitiello

Response of sewer pipelines to ground deformation
R. Guercio, R. Magini, I. Pallavicini

c5) rinking water supply systems

Ductile iron pipelines for water mains reliability and duration in different applications in the water cycle
P. Beretta

Ductile-brittle transition in failure mode in the pipes manufactured from a new plastics alloy: PVC-A (a new way of testing to evaluate the resistance of the crack growth)
C. Dal Pozzo

Microbiological risk in drinking water referring to the 98/83/ce Directive
E. Fea , G. Gilli, L. Meucci, S. Bonetta, E. Carraro

c6) optimization criteria for acqueducts

Water-distribution optimisation by reservoir volume re-distribution. An example in Cortaillod, Neuchâtel, Switzerland
M. Cellino, K. Essyad