20th October 2011	
TIME	SESSION
8:00-17:00	Registration

OPENNING / SPECIAL LECTURE	09:00 - 11:00	**BW Opening Ceremony**
		JOSE POLIMÓN, Spanish National Committe on Large Dams (SPANCOLD), Spain **JOSE E. CAPILLA, Research Institute of Water and Environmental Engineering (IIAMA), Spain** **JUAN B. MARCO, Department of Hydraulic and Environmental Engineering (DEPHMA), Spain**
		ALAIN CARRERE, Coyne et Bellier, France *The importance of numerical modelling on dam engineering* **IGNACIO ESCUDER, Universitat Politècnica de València (UPV), Spain** *New challenges for ICOLD Committee A - Committee on Computational Aspects of Analysis and Design of Dams*

11:00 - 11:30	COFFEE BREAK

11:30 - 14:00	**Theme A - "Effect of Concrete Swelling"** *Chair: CHRISTINE NORET, Coyne et Bellier, France*
	INTRODUCTION THEME A
	Presentation of Solutions by: - Antonella Frigerio, Giorgia Faggiani, Piero Masarati & Massimo Meghella (RSE Milano, Italy) - Javier Rodríguez, Patricia González, Francisco Martínez & Joaquín Martí (Principia, Spain) - Jaime Moles & Etienne Grimal (EDF, France) - Thomas Menouillard, Jean-François Seignol, Liviu-Ioan Boldea, Patricia Roure, Anton Tzenkov & Russell Michael Gunn (STUCKY Ltd, Switzerland) - Rita Esposito & M.A.N. Hendriks (TUDELFT, The Netherlands), G.Lilliu & G.M.A Schreppers (TNO DIANA BV, The Netherlands) - G.M.A Schreppers & G.Lilliu (TNO DIANA BV, The Netherlands) - Vladimir Kostylev (The B. E. Vedeneev VNIIG, Inc., Russia) - D. Curtis, L. Feng & M. Lafreniere (Hatch Ltd., Canada) - P.Y. Meriot, X. Molin and C. Noret (Tractebel Engineering/ Coyne et Bellier, France)
	COMPARISON & DEBATE

14:00-15:00	LUNCH

SPECIAL LECTURE	15:00 - 16:30	**EUGENIO OÑATE** **International Center for Numerical Methods in Engineering (CIMNE), Spain** *Advance in development of particle-based methods and finite element methods for fluid-soil-structure interaction problems*
		CAMILO MARULANDA **INGETEC, Colombia** *Behavior and analysis of CFRDs – a follow up of the 10th ICOLD Benchmark Workshop*
		DEREK SAKAMOTO **Brithish Columbia Hydro, Canada** *A Case Study in Loss of Life Risk Assessment for Dam Facilities Using a Simulation Model*

16:30 - 17:30	**Theme B - "Overtopping and seepage evolution"** *Chair: ANTONIA LARESE, International Center for Numerical Methods in Engineering (CIMNE), Spain*
	INTRODUCTION THEME B
	Presentation of Solutions by: - Antonia Larese, Riccardo Rossi & Eugenio Oñate (CIMNE, UPC, Spain) - Eduardo Salete, Sergio De Rico Herrero, Cristina Rodríguez Alvarez, Ruben Establés Antón & Sheila Coca Sola (INGECIBER SA, Spain)
	COMPARISON & DEBATE

20:30	BENCHMARK WORKSHOP DINNER

3rd International Week on Risk Analysis, Dam Safety, Dam Security, and Critical Infrastructure Management
Technical Programme: 11 [th] ICOLD BENCHMARK WORKSHOP - October 20-21, 2011

3IWRD

TIME	SESSION
	21st October 2011
8:00-17:00	Registration
09:00 - 11:00	**Theme C - "Probability of failure and safety coefficient"** *Chair: LUIS ALTAREJOS, Universitat Politècnica de València (UPV), Spain*
	INTRODUCTION THEME C
	Presentation of Solutions by: - Antonella Frigerio, Giorgia Faggiani, Piero Masarati & Massimo Meghella (RSE Milano, Italy) - Adrian Popovici & C. Illinca (Technical University of Civil Engineering Bucharest) - Bachir Touileb (Sogreah Consultants, France) - Alexandra Krounis & Fredrik Johansson (Royal Institute of Technology, Sweden) - Dmitry Shcherba (Hydraulic Engineering Research Institute, Saint-Petersburg, Russia) - Miriam Mercedes Cabrera Carpio & Rafael Jiménez-Rodríguez (Technical University of Madrid, Spain) - Mara Gascó Jiménez (Universitat Politècnica de València, Spain)
	COMPARISON & DEBATE
11:00 - 11:30	COFFEE BREAK
11:30 - 14:00	**Theme D "Open Technical Session"** *Chair: GUIDO MAZZA, RSE Milano, Italy*
	INTRODUCTION THEME D
	Panos Dakoulas **University of Thessaly, Greece** Seismic behavior of concrete face rockfill dams & Effect of longitudinal vibrations on the behavior of concrete faced rockfill dams
	Francisco Javier Sánchez Caro **Geotecnia de Proyectos y Obras (GEOprob), Spain** Non-Elastic movements analysis in order to evaluate arch dam safety
	Richard Malm, Daniel Eriksson, Tobias Gasch, Manouchehr Hassanzadeh **Vattenfall Research and Development AB, Sweden** Probabilistic analyses of thermal induced cracking in a concrete buttress dam
	I. Aliguer, I. Carol, E.E. Alonso, F. Río, R. Griñó **Universitat Politècnica de Catalunya (UPC), Spain / ENDESA, Madrid, Spain** Numerical analysis and safety evaluation of a large arch dam founded on fractured rock, using zero-thickness interface elements and a c-fi reduction method
	DEBATE
	Sam Johansson, Pontus Sjödahl **Hydroresearch, Sweden** Numerical modeling of seepage and temperature for internal erosion detection in embankment dams
	Alan Jeary **STRAAM Corporation** Risk-based assessment of dams using the measurement of low-amplitude dynamic response
	Javier Rodríguez, Patricia González, Francisco Martínez, Joaquín Martí **Principia Ingenieros Consultores S.A., Madrid, Spain** Concrete swelling in two spanish dams
	Fernando Salazar, Rafael Morán, Riccardo Rossi, Antonia Larese **International Center for Numerical Methods in Engineering (CIMNE), Spain** Numerical modeling of the hydraulic performance of Oliana Dam spillway using Kratos
	Daniel Pozo, Fernando Salazar, Miguel Á. Toledo, Miguel Á. Celigueta **International Center for Numerical Methods in Engineering (CIMNE), Spain** Numerical modeling of the aeration in bottom outlets using the particle finite element method (PFEM)
	DEBATE
14:00-15:00	LUNCH
15:00 -17:00	**Round Table** *IGNACIO ESCUDER, Universitat Politècnica de València (UPV), Spain*

OPEN PAPERS