INTERNATIONAL SYMPOSIUM

QUALIFICATION OF DYNAMIC ANALYSES OF DAMS AND THEIR EQUIPMENTS AND OF PROBABILISTIC ASSESSMENT OF SEISMIC HAZARD IN EUROPE

31th August - 2nd September 2016
Saint-Malo / FRANCE

Dr. Jean-Jacques FRY
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This international symposium is the first annual meeting of the ICOLD European Club Working Group "Dams and Earthquakes".

A lot of seismic methods are available and a lot of analyses are required by new stringent regulations in Europe. The points are: “How to define the seismic hazard? How the seismic hazard assessment and dynamic analyses are validated? What are the evidences of flaws or accuracy that you have experimented?”

CFBR invites JCOLD experts to present and discuss qualification of seismic analyses.

The deliverables of the symposium will be fundamental packages of qualification of seismic analyses: case studies of validation with measured data (including accelerograms at foundation and crest) compared to predicted results of seismic analyses.

ORGANIZING COMMITTEES

French Committee on Dams and Reservoirs
Japanese Commission on Large Dams

MEETING VENUE

The meeting will be held in “Palais des Congrès Le Grand Large”, in the heart of Saint-Malo City (1, quai Duguay Trouin, 35407 Saint-Malo, +33 2 99 20 60 20).

SUGGESTED ACCOMODATIONS

Be careful and book quickly: hotels are full in summer
www.saint-malo-tourisme.com

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TRAVEL INSTRUCTIONS

http://www.pgi-congres.com/informations-pratiques/acces/
Tours are organized for accompanying persons.

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PRELIMINARY SYMPOSIUM PROGRAMME

WEDNESDAY AUGUST 31TH

Session 1 Qualification of seismic hazard assessment D. Loudiere A Duttine
07.30 Registration
08.00 Welcome by CFBR and ICOLD
08.15 Discussing the SHARE PSHA results for France: co-Dntrolling factors and associated uncertainties, Myriam BELVAUX
08.40 Probabilistic seismic hazard assessment, Christophe DUROUCHOUX, Nicolas HUMBERT
09.05 Amplification and aggravation factors for site and basin effects, Kyriasis PITILAKIS, Evie RIGA
09.30 Discussion
09.45 Break

Session 2 CFRD & AFRD Narita and Kolmayer
10.05 Performance and analysis of CFRD and AFRD during 2008-2011 earthquakes, Norihisa MATSUMOTO
10.35 Evaluation of Earthquake Resistance on asphalt facing, Yoshiho NAKAMURA

Session 3 Soils properties and simplified analysis Tanaka & Frossard
11.05 Stress-strain behavior of compacted soils related to dam stability, Prof. Fumio TATSUMO
12.00 Lunch at your own expense
14.15 Soils properties assessment at Fujinuma dam, Prof. Fumio TATSUMO, Tadatsugu TANAKA
14.45 Simplified analysis taking into account degradation of soil properties, Antoine DUTTINE
15.15 Revisiting Sarma’s simplified method for the seismic response of embankments, Capucine DURAND
15.45 Break
16.05 Simplified analytical relationships for seismically induced slope displacements, K. PITILAKIS, Stavroula FOTOPOULOU
16.35 A simplified method for estimating displacements of homogeneous dams, Li-Hua LIU & Guillaume VEYRON
17.05 The validation of the CFBR JCOLD simplified analysis for embankment dams, Antoine des GARETS, Moez JELLOULI
17.35 Discussion on simplified seismic analyses
17.55 End of the daily sessions

Welcome Reception
18.30 up to 19.30 Visit and aperitif (included in the fees)

THURSDAY SEPTEMBER 1ST

Session 4 Seismic analysis of embankment dams F. Tatsuoka & M. Lino
08.00 Elasto-plastic dynamic response of dams: total & effective stress analyses, Prof. Tadatsugu TANAKA
08.35 Effects of future strong earthquakes and other aftershocks on rockfill large dams, Bachir TOULIEB
09.00 Effect of long term fluctuation of vibration & different scales of earthquakes, Zengyan CAO
09.25 Analysis of the effect of occluded air and pore fluid compressibility, Luc BOUTONNIER
09.50 Break
10.10 The reproduction analysis of Aratozawa dam during the 2008 earthquake, Nario YASUDA
10.40 Coupled elasto plastic dynamic response of dams, Fernando-LOPEZ CABALLERO
11.10 Application of non linear constitutive models to 3D simulation of dams, Shoichi TSUKUNI
11.40 Discussion on seismic analyses of embankment dams
12.00 Lunch at your own expense

Session 5 Seismic analyses of concrete dams B. Tardieu M. Kashiwayanagi
14.00 3D reproduction analysis of Kasyo dam, SASAKI
14.25 Concrete dams: dynamic modeling, experimental and in-situ results, Calibration and justification, Eric BOURDAKOT
14.50 Monticello dam: a comparison between seismic measured & numerical results, Giorgia FAGGIANI
15.15 Overestimated response of concrete dam by conventional approaches, Emmanuel ROBBE
15.40 Break
16.00 Characteristics of predominant frequency of existing arch dam, Masayuki KASHIWAYANAGI
16.25 Characterization of the dynamic behavior of an arch dam – The Baixo Sabor case study, Jose LEMOS
16.50 Characterization of the dynamic behavior of an arch dam & a gravity dam, Emmanuel ROBBE
17.15 Spatial variability of the seismic ground motion in the dam-foundation rock interface, Eleni KOUFOUDI
17.40 Discussion on seismic analyses
18.00 End of the daily sessions

Banquet
19.30 Banquet at Palais des Congrès (included in the fees)

FRIDAY SEPTEMBER 2ND (morning)

Session 6 Simplified seismic analyses of dams N. Matsumoto & A. Yziquel
08.00 Main assumptions for simplified seismic analysis of gravity dams, Bernard TARDIEU
08.25 Dynamic studies of concrete gravity dams: example of application, Patrick LIGNIER
08.50 Simplified dynamic analysis of two dams, Sadri MEVEL
09.15 Effects of radiative boundary conditions on seismic analysis of gravity dams, Frederic ANDRIAN
09.40 Discussion on simplified analyses for gravity dams
10.00 Break

Session 7 Qualification of equipment M. Kashiwayanagi & B. Reverchon
10.30 Comparison of design criteria of gates between Japan and France, Pierre-Guilhem BOUQUIER
10.55 FEM coupled with CFD Analysis of frequencies of gates, in air and in water compared to on-field measurements, David GRAVELEINE
11.30 Discussion

Session 8 Conclusions of the 1st ICOLD European Club Working Group N. Matsumoto & J-J Fry
11.45 Lessons & future prospects
12.00 Closure of the symposium

Credit photo : Thomas JOUANNEAU (SIGNATURES)