

SISMOVALP

List of publications

All the following publications have the mention that the work was carried out in the project Interreg IIIB
SISMOVALP

The appended CD-Rom contains a pdf file of each following publications.

See the file “Papers”

- 1 Álvarez-Rubio,S., H.B. Havenith and D. Fäh (2007). Seismic ground motion estimation in Alpine valleys (Valais, Switzerland): modelling and response spectra. Proceedings Asociación Española de Ingeniería Sísmica Girona, 8-11 may 2007.
- 2 Aochi H., J. Rey and J. Douglas (2006). Numerical Simulation of Wave Propagation in the Grenoble Basin. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°32 (Vol 1).
- 3 ARPA Piemonte, in collaboration with Politecnico di Milano- Dipartimento di Ingegneria Strutturale, Università di Genova- Dip.Te.Ris. (2006). Brochure presented within: “Forum della Pubblica Amministrazione” 8-12 may 2006, Roma.
- 4 Barnaba C., F. Palmieri, A. Vuan and E. Priolo (2006). Geophysical exploration and seismic response in the Tagliamento alpine valley (NE Italy). 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, abstract n°102 (Vol 2).
- 5 **Barnaba C., E. Priolo, A. Vuan, and M. Romanelli (2007). Site Effect Of The Strong-Motion Site At Tolmezzo-Ambiesta Dam In Northeastern Italy. Bull. Seis. Soc. Am., Vol97, 339-346, 2007.**
- 6 Bonilla L.F., P.C. Liu and S. Nielsen (2006). 1D and 2D linear and nonlinear site response in the Grenoble area. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°82 (Vol 1).
- 7 Cartier S. (2007). Microzonages sismiques dans les vallées alpines et déclinaison locale des règles d’urbanisme - Seismic micro-zoning in the alpine valleys and local application in urban planning regulations, RGA, Vol 2 ,51-72, 2007.
- 8 Causse M. (2004). Evaluation du mouvement sismique dans la cuvette grenobloise par la méthode des fonctions de Green empiriques. Rapport de Stage, juin 2004, 77p.
- 9 Causse M., F. Cotton and C. Cornou (2006). A ground-motion simulation approach coupling rock ground motion prediction equations and the empirical Green's functions method. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°27 (Vol 1).
- 10 **Causse, M., Cotton, F., Cornou, C. and Bard P.-Y (2008). Calibrating median and uncertainty estimates for a practical use of Empirical Green’s Functions technique. Bull. Seism. Soc. Am., Vol 98, 1, 344-353.**
- 11 Cauzzi C., C. Eva, G. Ferretti, V. Giraud and R. Paolucci, Seismic response of alpine valleys: the case of Val Pellice, Italy. First European Conference on Earthquake Engineering and Seismology, 3-8 September 2006, Geneva, Switzerland, paper n°636.
- 12 Chaljub E. (2006). Spectral Element modeling of 3D wave propagation in the alpine valley of Grenoble, France. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper S04 (Vol 2).

- 13 Chaljub E., C. Cornou and P.-Y. Bard (2006). Numerical benchmark of 3D ground motion simulation in the valley of Grenoble, French Alps. France. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper SB1 (Vol 2).
- 14 Chaljub, E., S. Tsuno, P.-Y. Bard, C. Cornou, 2007. Analyse des résultats d'un benchmark numérique de prédiction du mouvement sismique dans la vallée de Grenoble, 7^{ème} colloque de l'Association Française de Génie Parasismique, Paris (France), juillet 2007. AFPS 2007.
- 15 Chaljub E., C. Cornou, P. Guéguen, M. Causse, D. Komatish (2005). Spectral element modelling of 3D wave propagation in the alpine valley of Grenoble, France . EGU 2005, GRA, Vol 7, 05225, 2005
- 16 **Chaljub E., D. Komatitsch, J-P. Vilotte, Y. Capdeville, B. Valette and G. Festa (2006). Spectral-element analysis in seismology. In: Wu R.S. and V. Maupin (Eds), *Advances in Wave Propagation in Heterogeneous Media*. In: *Advances in geophysics*, vol. 48, Elsevier, pp.365-419**
- 17 Costa G., L. Moratto, D. Sandron, A. Delise and P. Suhadolc (2006). Ground motion attenuation and shaking maps generation in the southern Alps area. First European Conference on Earthquake Engineering and Seismology, 3-8 September 2006, Geneva, Switzerland, poster n°1811.
- 18 Costa G., P. Suhadolc, A. Delise, L. Moratto, E. Furlanetto and F. Fitzko (2006). Estimation of Site Effects at Some Stations of the Friuli (NE Italy) Accelerometric Network (RAF). 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°89 (Vol 2).
- 19 Cotton F., F. Scherbaum, J. Bommer, H. Bungum (2005). Criteria for selecting and adjusting ground-motion modes for specific target regions: application to central Europe and rock sites. EGU 2005, GRA, Vol 7, 052267, 2005
- 20 Douglas J., H. Aochi, P. Suhadolc and G. Costa (2006). On the applicability of one dimensional crustal structures for ground motion simulation. First European Conference on Earthquake Engineering and Seismology, 3-8 September 2006, Geneva, Switzerland, Paper n° 18.
- 21 **Douglas, J., H. Aochi, P. Suhadolc and G. Costa (2007). The importance of crustal structure in explaining the observed uncertainties in ground motion estimation. *Bulletin of Earthquake Engineering*, 5(1), 17-26.**
- 22 Douglas J., P. Gueguen, E. Chaljub, F. Cotton, P. Suhadolc, G. Costa, D. Faeh, E. Spühler, A. Gosar, E. Priolo, C. Barnaba, R. Paolucci, C. Cauzzi and C. Eva (2006). Dissemination of Alpine Accelerometric Data. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°31 (Vol 1).
- 23 Douglas, J., P. Guéguen, E. Chaljub, F. Cotton, P. Suhadolc, G. Costa, D. Faeh, E. Spühle, A. Gosar, E. Priolo, C. Barnaba, R. Paolucci, C. Cauzzi, C. Eva. (2006). Alpine Accelerometric Database. CD-ROM I, Projet Interreg 3B, Sismoalp.
- 24 **Drouet, S., Chevrot, S., Cotton, F. and Souriau, A (2008). Simultaneous inversion of source spectra, attenuation parameters and site responses. Application to the data of the French Accelerometric Network. *Bull. Seism. Soc. Am.*, Vol 98, 1, 198-219.**
- 25 **Drouet S., A. Souriau and F. Cotton (2005). Attenuation, seismic moments and site effects for weak-motion events: application to the Pyrenees. *Bull. Seism. Soc. Am.*, Vol 95, 1731-1748.**
- 26 Ferretti G., M. Massa., L. Isella e C.Eva, (2005). Uso di dati telesismici per la determinazione degli effetti di sito in Val Pellice, 24[°] Convegno nazionale GNGTS, Roma, C.N.R.
- 27 **Ferretti G., M. Massa, L. Isella, and C. Eva (2007). Site-Amplification Effects Based on Telesismic Wave Analysis: The Case of the Pellice Valley, Piedmont, Italy. *Bull. Seis. Soc. Am.*, Vol. 97, 2, 605-613.**
- 28 **Fitzko F., G. Costa, A. Delise and P. Suhadolc (2007). Site Effects Analyses in the Old City Center of Trieste (NE Italy) Using Accelerometric Data. *Journal of Earthquake Engineering*, 11:1, 33 - 48**
- 29 **Furlanetto E., G. Costa, P. Suhadolc, F. Palmieri (2008) Gravimetric characterization of the Gemona (NE Italy) alluvial fan for site estimation. *Near Surface Geophysics*, [in revision](#)**
- 30 Furlanetto E., G. Costa, F. Palmieri, A. Delise, and P. Suhadolc (2006). Gravimetric and microseismic characterization of the Gemona (NE Italy) alluvial fan for site effects estimation. First European

Conference on Earthquake Engineering and Seismology, 3-8 September 2006, Geneva, Switzerland, poster n°1935.

- 31 Furlanetto E., G. Costa, F. Palmieri, A. Delise, P. Suhadolc (2006). Gravimetric and microseismic characterization of the Gemona (NE Italy) alluvial fan for site effects estimation. EGU 2006, GRA, Vol 8, 05994, 2006.
- 32 **Gosar A. (2007). Microtremor HVSR study for assessing site effects in the Bovec basin (NW Slovenia) related to 1998 Mw5.6 and 2004 Mw5.2 earthquakes. Engineering Geology, 91, 178-193.**
- 33 **Gosar A. (2008) Site effects study in shallow glaciofluvial basin using H/V spectral ratios from ambient noise and earthquake data; the case of Bovec basin (NW Slovenia). Journal of Earthquake Engineering, Vol 12, 17-35.**
- 34 **Guéguen P., C. Cornou, S. Garambois and J. Banton (2007). On the limitation of the H/V spectral ratio using seismic noise as an exploitation tool : application to the Grenoble valley (France), a small apex ratio basin. PAGEOPH, 164(1), 115-134.**
- 35 Gueguen P., S. Garambois, S. Tadenuma, B. Lebrun, and F. Cotton (2006). Geotechnical, geophysical and seismological data used for the estimate of the highest amplified frequency in the basin of Grenoble. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°100 (Vol 2).
- 36 Jerram J., P. Foray, S. Labanieh and E. Flavigny (2006). Characterising the nonlinearities of lacustrine clays in the Grenoble basin. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°81 (Vol 1).
- 37 Jerram J., P. Foray and E. Flavigny (2006). Caractérisation des sols de la cuvette grenobloise: application à l'étude du risque de liquéfaction. Journées nationales de Géotechnique et de Géologie de l'ingénieur, Lyon.
- 38 Lacave C. and F. Hollender (2006). Ground motion simulation on a 2D profile across the Grenoble basin using the Aki-Larner discrete wave-number method. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°14 (Vol 1).
- 39 Lacave C. and F. Lemeille (2006). Seismic hazard and alpine valley response analysis: generic valley configuration.. First European Conference on Earthquake Engineering and Seismology, 3-8 September 2006, Geneva, Switzerland, paper n°1.
- 40 Lacave, C., F. Lemeille, P. Guéguen, E. Priolo, C. Barnaba, A. Vuan, G. Costa, A. Gosar, P. Suhadolc, D. Fäh, D. Roten, P. Tissières, S. Tadenuma, P.-Y. Bard, F. Cotton, C. Eva, V. Giraud, R. Paolucci, F. Bonilla, P. Foray, J. Jerram. (2006). Generic Alpine Valley characterization. CD-ROM II, Projet Interreg 3B, Sismoalp.
- 41 Lemeille F. (2005). Contribution de l'IRSN à la synthèse des éléments généraux sur la géométrie et sur la nature du remplissage des vallées alpines (prg européen SISMOVALP), note technique DEI/SARG n° 04-50.
- 42 Lemeille F. (2005). Distribution des formations géologiques superficielles du remplissage post-glaciaire de la vallée de Grenoble (prg européen SISMOVALP), note technique DEI/SARG n°02-55.
- 43 Paolucci R. and D. Spinelli (2006). WAVE2D: a computer program for SH seismic wave propagation in heterogeneous media by the Fourier pseudo-spectral method. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°43 (Vol 1).
- 44 Paolucci R. and L. Morstabilini (2006). Non-dimensional site amplification functions for basin edge effects on seismic ground motion. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°41 (Vol 1).
- 45 **Roten, D. and D. Fäh (2006). A combined inversion of Rayleigh wave dispersion and 2D resonance frequencies. Geophysical J. Int.. 168, 1261-1275.**
- 46 Roten D., D. Faeh, Oprsals I., Olsen K. and D. Giardini (2006). Site effects in the Rhône valley analysed from ambient noise, local earthquakes and numerical simulations. 3rd International Symposium on

the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°92 (Vol 1).

- 47 Roten D., D. Fäh, I. Oprsäl, K. Olsen and D. Giardini (2006). Analysis of deep valley response by ambient noise, earthquake records and numerical simulations, First European Conference on Earthquake Engineering and Seismology. Geneva, Switzerland, 3-8 September 2006, paper number 1108
- 48 Turino C., G. Ferretti, C. Eva, C. Cauzzi, R. Paolucci (2006) Seismic Response analysis of La Salle fluvial fan, Valle D'Aosta, Italy. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°79 (Vol 2).
- 49 Vanini M., M. Villani, E. Faccioli and A. Gosar (2006). Modelling of strong ground motion of the July 2004 , Mw 5.2 earthquake in Krn mountains. 3rd International Symposium on the Effects of Surface Geology on Seismic Motion. Grenoble, France, 30 August-1 September 2006, LCPC, paper n°33 (Vol 2).
- 50 Sesarray training – information sheet

See the file **“Restitution Day Tolmezzo-9March2007”**

Conference organised in Tolmezzo (Italy), the 9 March 2007, to present the results of the project SISMOVALP in Italy.

The following presentations are available on web at: <http://www2.inogs.it/sismovalp> and on the appended CD-Rom

Pericolosità e amplificazione sismica locale nelle valli alpine, Convegno di presentazione dei risultati del progetto SISMOVALP, Tolmezzo (UD) 9 Marzo 2007.

- L. Palazzo, The Italian Participation in the EU Community Initiative Alpine Space: Results and perspectives
- E. Priolo, Il Progetto SISMOVALP: Sommario generale, descrizione e risultati ottenuti
- C. Barnaba, Le vallate alpine: caratteri generali ed elementi in comune
- G. Costa, Il conoide di Gemona e la Val Resia
- C. Eva, Analisi della risposta sismica del Comune di Torre Pellice (Val Pellice) e del Comune di La Salle (AO): osservazioni sperimentali e simulazioni numeriche
- A. Vuan, L'Alta Val Tagliamento e l'area di Tolmezzo e Cavazzo Carnico
- R. Paolucci, Sintesi dei risultati ottenuti sulle diverse valli e possibili implicazioni normative
- C.G. Lai, Indagini geognostiche per la caratterizzazione geotecnico-sismica dei siti
- A. Rovelli, Metodi di indagine per la stima della risposta di sito
- M. Dolce, Stato attuale ed evoluzione della normativa sismica italiana

See the file **“Restitution Day Grenoble-21juin2007”**

Conference organised in Grenoble (France), the 21 June 2007, to present the results of the project SISMOVALP in France

Projet SISMOVALP : Risque Sismique dans les vallées alpines

The following presentations are available on web at: <http://www.obs.ujf-grenoble.fr/risknat/> and on the appended CD-Rom

- F. Cotton (LGIT, UJF), Projet Sismovalp : Aléa sismique à Grenoble et dans les vallées alpines,
- P. Guéguen (LGIT, LCPC), Vulnérabilité du bâti collectif : restitution des projets Vulneralp et Sismo-DT,
- E. Francou et S.Baranger (Direction des bâtiments, Ville de Grenoble), Démarche de la Ville de Grenoble en lien avec le projet Sismo-DT,
- C. Lutoff (PACTE, UJF) et P.A. Davoine (LSR, INPG) Conscience et perception du risque sismique à Grenoble,
- J.D. Rouiller (Canton du Valais) et R. Perruzi (expert agréé), Autorisation de construire : procédure valaisanne et formulaires d'expertise
- P.Y. Bard (LGIT, LCPC), Contexte et perspectives réglementaires
- P. Sabourault (MEDAD), Plan séisme National

A. Palmier (DIREN) et J.M. Vengeon (PGRN), Actions programmées en Rhône-Alpes dans le cadre du Plan Séisme : information, formation des professionnels...

Plus

File” d-Brochure”

Presentation of a synopsis of the project in French

File “e-Synthese Vallees”

Presentation of the work done on the eight valleys during the project Sismoalp

Presentation of the two CD-ROM’s

