

Pubblicazione monografie o parti di monografie:

Foti, S., **Lai, C.G.**, Rix, G.J., Strobbia, C.

Surface Wave Methods for Near-Surface Site Characterization. Pubblicato da CRC Press, Taylor & Francis Group, pp. 467. August 2014. ISBN: 978-0-415-67876-6.

Lai, C.G., Martinelli, M.

“Chapter 1 – **Soil-Structure Interaction Under Earthquake Loading: Theoretical Framework**” in *ALERT Doctoral School 2013 – Soil-Structure Interaction*. Edited by P. Kotronis, C. Tamagnini, and S. Grange. Lecture Notes of ALERT 2013 Graduate School. Hermes Science Publications, Paris, pp. 226, September 2013. ISBN: 978-2-9542517-4-5.

Lai, C.G.

Sezione 3.2 “**Azione Sismica**”. *Norme Tecniche per le Costruzioni*. Guida alla interpretazione e applicazione del D.M. 14.1.2008 e della Circolare esplicativa 617/2009. A cura di D. Guzzoni. Il Sole 24 Ore, pp. 624, Maggio 2010. ISBN: 97-888-3247-627.

Lai, C.G., Foti, S., Rota, M.

Input Sismico e Stabilità Geotecnica dei Siti di Costruzione Collana di Manuali di Progettazione Antisismica, Vol. 6, IUSS Press. ISBN: 978-88-6198-035-8. Prodotto e distribuito da Fondazione EUCENTRE, Via Ferrata 1 - 27100 Pavia. Aprile 2009, pp. 312.

Lai, C.G.

Sezione 3.2 “**Azione Sismica**”; Sezione 7.4 “**Effetti Azione Sismica**”. *Norme Tecniche per le Costruzioni. Analisi e Commento del D.M. 14 Settembre 2005. Progettazione, esecuzione, collaudo, manutenzione e utilizzo delle opere. I nuovi criteri per l'antisismica*. A cura di D. Guzzoni. Il Sole 24 Ore, pp. 512, Aprile 2006. ISBN: 88-324-5957-4.

Calvi, G.M., Pavese, A., Ceresa, P., Dacarro, F., **Lai, C.G.**, Beltrami, C.

Design of a Large Dynamic and Pseudo-Dynamic Testing Facility, IUSS Press, pp. 178, October 2005. ISBN: 88-7358-026-2.

Lai C.G., Wilmanski K. (Editors).

Surface Waves in Geomechanics: Direct and Inverse Modeling for Soils and Rocks, CISM Lecture Notes No. 481, CISM-Springer Verlag, October 2005, pp. 385, ISBN: 3-211-27740-4.

Lai, C.G.

“Chapter 3 – **Surface Waves in Dissipative Media: Forward and Inverse Modelling**” in *Surface Waves in Geomechanics: Direct and Inverse Modeling for Soils and Rocks*. Edited by C.G. Lai and K. Wilmanski, CISM Lecture Notes Vol. No. 481, Springer-Verlag, pp. 385, October 2005. ISBN: 3-211-27740-4.

Lo Presti, D.C.F., **Lai, C.G.**, Foti, S.

“Chapter 4 – **Geophysical and Geotechnical Investigations for Ground Response Analyses**” *Recent Advances in Earthquake Geotechnical Engineering and Microzonation*. A. Ansal Ed., Kluwer Academic Publishers, pp. 368, March 2004. ISBN: 1-402-01827-4.

Publicazione articoli recensiti su riviste scientifiche internazionali:

Lai, C.G. and Özcebe, A.G.

Non-Conventional Lab and Field Methods for Measuring Frequency-Dependent Low-Strain Parameters of Soil Dynamic Behaviour

Soil Dynamics and Earthquake Engineering. In stampa. <http://dx.doi.org/10.1016/j.soildyn.2016.09.007>.

Petaccia, G., Lai, C.G., Milazzo, C., Natale, L.

The collapse of Sella Zerbino Gravity Dam.

Engineering Geology, Vol. 211, pp. 39-49. Settembre 2016.

Zuccolo, E., Gibbs, T., Lai, C.G., Latchman, J.L., Salazar, W., Di Sarno, L., Farrell, A., Lynch, L., Workman, A.

Earthquake Early Warning Scenarios at Critical Facilities in the Eastern Caribbean.

Bulletin of Earthquake Engineering, Vol. 14, Issue 9, pp 2579–2605. Settembre 2016.

Abraham, R.J., Smerzini, C., Paolucci, R., Lai, C.G.

Numerical Study on Basin-Edge Effects in the Seismic Response of the Gubbio Valley, Central Italy

Bulletin of Earthquake Engineering, Vol. 14, Issue 6, pp 1437–1459. Giugno 2016.

Calabrese, A., Lai, C.G.

Sensitivity Analysis of the Seismic Response of Gravity Quay Walls to Perturbations of Input Parameters

Soil Dynamics and Earthquake Engineering, Vol. 82, pp. 55-62. Marzo 2016.

Deyanova, M.G., Lai, C.G., Martinelli, M.

Displacement-Based Parametric Study on the Seismic Response of Gravity Earth-Retaining Walls

Soil Dynamics and Earthquake Engineering, Vol. 80, pp. 210-224. Gennaio 2016.

Abraham, R.J., Lai, C.G., Papageorgiou, A.

Basin-Effects Observed During the 2012 Emilia Earthquake Sequence in Northern Italy

Soil Dynamics and Earthquake Engineering, Vol. 78, pp. 230–242. Novembre 2015.

Lai, C.G., Bozzoni, F., Mangriotis, M.-D., Martinelli, M.

Soil Liquefaction During the May 20, 2012 M5.9 Emilia Earthquake, Northern Italy: Field Reconnaissance and Post-Event Assessment

Earthquake Spectra, Vol. 31, No. 4, pp. 2351–2373. Novembre 2015.

Zembaty, Z., Kokot, S., Bozzoni, F., Scandella, L., Lai, C.G., Kus, J., Bobra, P.

A System to Mitigate Deep Mine Tremor Effects in the Design of Civil Infrastructures.

International Journal of Rock Mechanics and Mining Sciences. Vol. 74, pp. 81–90. Marzo 2015.

Lai, C.G., Mangriotis, M.-D., Rix, G.J.

An Explicit Relation for the Apparent Phase Velocity of Rayleigh-waves in a Vertically-Heterogeneous Elastic Half-Space.

Geophysical Journal International. Vol. 199, No. 2, pp. 673-687. Ottobre 2014.

Zuccolo, E., Corigliano, M., Lai, C.G.

Selection of Spectrum- and Seismo- Compatible Accelerograms for the Tuscany Region in Central Italy

Soil Dynamics and Earthquake Engineering, Vol. 66, pp. 305-313. Agosto 2014.

Trianni, S.C.T., Lai, C.G., Pasqualini, E.

Probabilistic Seismic Hazard Analysis at a Strategic Site in the Bay of Bengal

Natural Hazards. Vol. 74, No. 3, pp. 1683–1705. Dicembre 2014. DOI 10.1007/s11069-014-1268-3.

Sanchez-Lizarraga, H., **Lai, C.G.**

Effects of Spatial Variability of Soil Properties on the Seismic Response of an Embankment Dam.
Soil Dynamics and Earthquake Engineering, Vol. 64, pp. 113-128. Giugno 2014.

Tarque, N., **Lai, C.G.**, Bozzoni, F., Miccadei, E., Piacentini, T., Camata, G., Spacone, E.

Expected Ground Motion at the Historical Site of Poggio Picense, Central Italy, with Reference to Current Italian Building Code

Engineering Geology, Vol. 166, pp. 100–115. Settembre 2013.

Calabrese, A., **Lai, C.G.**

Fragility Functions of Blockwork Wharves Using Artificial Neural Networks

Soil Dynamics and Earthquake Engineering, Vol. 52, pp. 88-102. Giugno 2013.

Zuccolo, E., Corigliano, M., **Lai, C.G.**

Probabilistic Seismic Hazard Assessment of Italy Using Kernel Estimation Methods

Journal of Seismology, Vol. 17, pp. 1001-1020. Maggio 2013.

Corigliano, M., **Lai, C.G.**, Rota, M., Strobbia, C.

ASCONA: Automated Selection of Compatible Natural Accelerograms

Earthquake Spectra, Vol. 28, No. 3, pp. 965–987. Agosto 2012.

Bozzoni, F., **Lai, C.G.**, Scandella, L.

2012 Emilia Earthquakes: Preliminary Results of Ground-Motion Characteristics

Annals of Geophysics, Vol. 55, No. 4, pp. 609-614. Agosto 2012. DOI: 10.4401/ag-6121.

Rota, M., Zuccolo, E., Taverna, L., Corigliano, M., **Lai, C.G.**, Penna, A.

Mesozonation of Italian Territory for Definition of Compatible Accelerograms

Bulletin of Earthquake Engineering. Vol. 10, pp. 1357–1375. Agosto 2012. DOI 10.1007/s10518-012-9369-4.

Corigliano, M., **Lai, C.G.**, Menon, A., Ornthammarath, T.

Seismic Input at the Archaeological Site of Kancheepuram in Southern India

Natural Hazards. Vol. 63, No. 2, pp. 845–866. Agosto 2012. DOI 10.1007/s11069-012-0195-4.

Thomopoulos, C., **Lai, C.G.**

Preliminary Definition of Fragility Curves for Pile-Supported Wharves

Journal of Earthquake Engineering, Vol. 16, Supplement 1, Gennaio 2012, pp. 83-106.

Lai, C.G., Crempien de la Carrera, J.G.F.

Stable Inversion of Measured V_P and V_S to Estimate Porosity in Fluid-Saturated Soils

Géotechnique, Vol. 62, No. 4, pp. 359–364. Marzo 2012.

Bozzoni, F., Corigliano, M., **Lai, C.G.**, Salazar, W., Scandella, L., Zuccolo, E., Latchman, J., Lynch, L., Robertson, R.

Probabilistic Seismic Hazard Assessment at the Eastern Caribbean Islands

Bulletin of Seismological Society of America, Vol.101, No.5, pp. 2499-2521. Ottobre 2011.

Corigliano, M., Scandella, L. **Lai, C.G.**, Paolucci, R.

Seismic Analysis of Deep Tunnels in Near Fault Conditions: a Case Study in Southern Italy

Bulletin of Earthquake Engineering, Vol. 9, No. 4, pp. 975–995. Agosto 2011.

- Ornthammarath, T., Douglas, J., Sigbjörnsson, R., **Lai, C.G.**
Assessment of Ground Motion Variability and Its Effects on Seismic Hazard Analysis: A Case Study for Iceland
 Bulletin of Earthquake Engineering, Vol. 9, No. 4, pp. 931–953. Agosto 2011.
- Scandella, L., **Lai, C.G.**, Spallarossa, D., Corigliano, M.
Ground Shaking Scenarios at the Town of Vicoforte, Italy
 Soil Dynamics and Earthquake Engineering, Vol. 31, No. 5-6, pp. 757-772, Maggio-Giugno 2011.
- Ornthammarath, T., Warnitchai, P., Worakanchana, K., Zaman, S., Sigbjörnsson, R., **Lai, C.G.**
Probabilistic Seismic Hazard Assessment for Thailand
 Bulletin of Earthquake Engineering, Vol. 9, No. 2, pp. 367–394. Aprile 2011.
- Rota, M., **Lai, C.G.**, Strobbia, C.
Stochastic 1D Site Response Analysis at a Site in Central Italy
 Soil Dynamics and Earthquake Engineering, Vol. 31, No. 4, pp. 626-639, Aprile 2011.
- Menon, A., Ornthammarath, T., Corigliano, M., **Lai, C.G.**
Probabilistic Seismic Hazard Macrozonation of Tamil Nadu in Southern India
 Bulletin of Seismological Society of America, Vol.100, No.3, pp. 1320-1341, Giugno 2010.
- Pasquali, R., **Lai, C.G.**, Corigliano, M.
Some Issues in Seismic Analysis and Design of Blockwork Wharves
 Journal of Earthquake Engineering, Vol. 14, No. 1, pp. 102-130, Gennaio 2010.
- Khan, Z.H., Cascante, G., El Naggar, M.H., and **Lai, C.G.**
Measurement of Frequency-Dependent Dynamic Properties of Soils Using the Resonant Column Apparatus
 Journal of Geotechnical and Geoenvironmental Engineering. Vol. 134, No. 9, Settembre 2008. pp. 1319–1326.
- Meza-Fajardo, K.C., and **Lai, C.G.**
Explicit Causal Relations between Material Damping Ratio and Phase Velocity from Exact Solutions of the Dispersion Equations of Linear Viscoelasticity
 Geophysical Journal International. Vol. 171, No.3, pp. 1247-1257, Novembre 2007.
- Lo Presti, D.C.F., **Lai, C.G.**, Puci, I.
ONDA: Computer Code for Nonlinear Seismic Response Analyses of Soil Deposits
 Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Vol. 132, No.2, pp. 223-236, Febbraio 2006.
- Beltrami, C., **Lai, C.G.**, and Pecker, A.
A Kinematic Interaction Model for a Large-Diameter Shaft Foundation. An Application to Seismic Demand Assessment of a Bridge Subject to Coupled Swaying-Rocking Excitation
 Journal of Earthquake Engineering, Vol. 9, Supplement 2, pp. 355-393, Gennaio 2005.
- Lai, C.G.**, Callerio, A., Faccioli, E., Morelli, V., Romani, P.
Prediction of Railway-Induced Ground Vibrations in Tunnels
 Journal of Vibration and Acoustics, Transactions of the ASME, Vol. 127(5), pp. 503-514, Ottobre, 2005.
- Lai, C.G.**, Foti, S., Rix, G.J.
Propagation of Data Uncertainty in Surface Wave Inversion
 Journal of Environmental and Engineering Geophysics, 10(2), pp. 219-228, Luglio 2005.

Menon, A., **Lai, C.G.**, Macchi, G.

Seismic Hazard Assessment of the Historical Site of Jam in Afghanistan and Stability Analysis of the Minaret

Journal of Earthquake Engineering, Vol. 8, Supplement 1, pp. 251-294, Gennaio 2004.

Lai, C.G., Rix, G.J.

Solution of the Rayleigh Eigenproblem in Viscoelastic Media

Bulletin of Seismological Society of America, Vol.92, No.6, pp. 2297-2309, Agosto 2002.

Lai, C.G., Rix, G.J., Foti, S., Roma, V.

Simultaneous Measurement and Inversion of Surface Wave Dispersion and Attenuation Curves

Soil Dynamics and Earthquake Engineering, Vol. 22, No. 9-12, pp. 923-930, Ottobre-Dicembre 2002.

Foti, S., **Lai, C.G.**, Lancellotta, R.

Porosity of Fluid-Saturated Porous Media from Measured Seismic Wave Velocities

Géotechnique, Vol. 52, No. 5, pp. 359-373, Giugno 2002.

Rix, G.J., **Lai, C.G.**, Foti, S.

Simultaneous Measurement of Surface Wave Dispersion and Attenuation Curves

Geotechnical Testing Journal, Vol. 24, No. 4, pp. 350-358, Dicembre 2001.

Rix, G.J., **Lai, C.G.**, Spang, A.W.

In Situ Measurements of Damping Ratio Using Surface Waves

Journal of Geotechnical and Geoenvironmental Engineering, ASCE, Vol. 126, No.5, pp. 472-480, Maggio 2000.

Pubblicazione articoli recensiti su riviste scientifiche nazionali:

Bozzoni, F., Chiarolla, S., **Lai, C.G.**

Valutazione della Risposta Sismica di Dighe in Terra della Regione Campania Mediante Approcci Semplificati

Progettazione Sismica. Vol. 6, No. 1, pp. 49-67. Gennaio-Aprile 2015.

Famà, A., Bozzoni, F., **Lai, C.G.**

Valutazione in Ambiente GIS del Danno Sismico di Strutture Portuali Marittime: il Caso del Porto di Gioia Tauro

Progettazione Sismica. Vol. 5, No. 2, pp. 49-72. Maggio-Agosto 2014.

Taverna, L., Zuccolo, E., Corigliano, M., Rota, M., **Lai, C.G.**, Penna, A.

Definizione di Accelerogrammi Reali Spettro-Compatibili per l'Intero Territorio Nazionale

Progettazione Sismica. Vol. 4, No. 2, pp. 63-79. Maggio-Agosto 2013.

Bozzoni, F., **Lai, C.G.**, Martinelli, M.

Liquefazione: Confronto tra Effetti Osservati e Valutazioni Preliminari della Suscettibilità

Progettazione Sismica. Vol. 3, No. 3, pp. 95-108. Settembre-Dicembre 2012. Volume monotematico sul terremoto in Emilia del 20-29 Maggio 2012.

Bozzoni, F., Scandella, L., **Lai, C.G.**, Corigliano, M.

Stima del Danno Sismico di Porti Marittimi Attraverso la Tecnologia GIS: il Caso del Porto di Salerno

Progettazione Sismica. Vol. 2, No. 1, pp. 117-137. Gennaio-Aprile 2011.

Lai, C.G., Corigliano, M., Agosti, M.

Dighe e terremoti: il caso del sisma Aquilano

Progettazione Sismica. Vol. 1, No. 3, pp. 183-205. Settembre-Dicembre 2009.

Corigliano, M., **Lai, C.G.**, Barla, G.

Approcci Semplificati nella Progettazione Sismica di Gallerie Profonde

Progettazione Sismica. Vol. 1, No. 1, pp. 105-133, Gennaio-Aprile 2009.

Lai, C.G., Strobbia, C., Dall'Ara, A.

Definizione dell'Input Sismico nei Territori Toscani della Lunigiana e Garfagnana.

Rivista Italiana di Geotecnica (RIG). No. 1, pp. 9-29. Gennaio-Marzo 2008.

Lai, C.G. and Meza-Fajardo, K.C.

On the Implications of the Principle of Physical Causality in the Propagation of Seismic Waves in Geomaterials

Rivista Italiana di Geotecnica (RIG). No. 2, pp. 10-25. Aprile-Giugno 2007.

Lai, C.G.

Spectral Analysis of Surface Waves – Active Methods – Technical Recommendations

Rivista Italiana di Geotecnica (RIG), No.4, pp. 201-212. Dicembre 2000.

Lai, C.G., Foti, S., Godio, A., Rix, G.J., Sambuelli, L., Socco, V.

Caratterizzazione Geotecnica dei Terreni Mediante l'Uso di Tecniche Geofisiche

Rivista Italiana di Geotecnica (RIG), Pubblicazione Speciale, No.3, pp. 99-118, Settembre 2000, Panel di Specialità XX Conferenza Nazionale di Geotecnica, Parma, Settembre 22-25, 1999.

Publicazione articoli recensiti in congressi scientifici internazionali:

Di Laora, R., Fioravante V., Giretti, D., **Lai, C.G.**

Soil Pressures Against Slope-Stabilising Shafts: Some Aspects Deducted via Centrifuge Tests

Proceedings, 3rd European Conference on Physical Modelling in Geotechnics, Eurofuge 2016, Nantes, France 1-3 June 2016.

Lai, C.G., Özcebe, A.G.

Non-Conventional Methods for Measuring Low-Strain Dynamic Properties of Geomaterials

Proceedings, 6ICEGE, 6th International Conference on Earthquake Geotechnical Engineering, Christchurch, New Zealand, November 1-4, 2015. Keynote paper.

Andreotti, G., **Lai, C.G.**

Methodology to Derive State-Dependent Fragility Curves of Underground Tunnels

Proceedings, 6ICEGE, 6th International Conference on Earthquake Geotechnical Engineering, Christchurch, New Zealand, November 1-4, 2015.

Mirfattah, S.A., **Lai, C.G.**

Effect of Uncertainties in Soil Properties on Probabilistic Seismic Performance of Pile-Supported Wharves

Proceedings, 6ICEGE, 6th International Conference on Earthquake Geotechnical Engineering, Christchurch, New Zealand, November 1-4, 2015.

Bozzoni, F., Famà, A., **Lai, C.G.**, Mirfattah, S. A.

Seismic Risk Assessment of Seaports using GIS: the Port of Gioia Tauro in Southern Italy.

Proceedings, 33rd PIANC World Congress San Francisco, USA 2014, June 1-5, 2014.

Bozzoni, F., **Lai, C.G.**, Mangriotis, M.-D., Margiotta, S.

Definition of Seismic Input at the Archeological Site of Marte Ultore Temple in Rome (Italy)

Proceedings, International Conference on Rehabilitation and Restoration of Structures in Honour of Prof. M. S. Mathews, February 13-16, 2013. Indian Institute of Technology Madras, Chennai, India.

Chiorino, M.A., Ceravolo, R., **Lai, C.G.**, Casalegno, C.

Survey, Seismic Input and Structural Modeling of the “Regina Montis Regalis” Basilica and Large Elliptical Dome at Vicoforte, Northern Italy

Proceedings, SAHC 2012, 8th International Conference on Structural Analysis of Historical Constructions, Wroclaw, Poland, October 15-17, 2012.

Palmieri, M., Magenes, G., **Lai, C.G.**, Penna, A., Bozzoni, F., Rota, M., Macchi, G., Auricchio, F., Menon, A., Meher-Prasad, A.

Reduction of Seismic Risk of Roman and Hindu Temples

Proceedings, SAHC 2012, 8th International Conference on Structural Analysis of Historical Constructions, Wroclaw, Poland, October 15-17, 2012.

Lai, C.G., Özcebe, A.G.

In-Situ Measurement of Damping Ratio Spectra from the Inversion of Phase Velocities of P and S Waves in Cross-Hole Seismic Testing

Proceedings 2nd International Conference on Transportation Geotechnics, IS-Hokkaido 2012, Sapporo, Japan, September 10 – 12, 2012. Paper No. 100037.

Corigliano, M., **Lai, C.G.**

Seismic Response of Gravity Wharves Using Modified Newmark Modelling with a Double-Support Excitation

Proceedings 5th International Conference on Earthquake Geotechnical Engineering, 5ICEGE, Santiago, Chile, January 10 – 13, 2011. Paper No. 1797340236.

Corigliano, M., **Lai, C.G.**, Pasquali, R.

Seismic response of gravity walls using Newmark-type modelling with double-support excitation

Soil-Foundation-Structure Interaction. Selected papers presented at the International Workshop on SFSI, Auckland, New Zealand, November 26-27, 2009. Ed. Orense et al. CRC Press, Balkema, pp. 141-148, 2010.

Khan, Z.H., Cascante, G., El Naggar, M.H. and **Lai, C.G.**

Evaluation of First Mode of Vibration, Base Fixidity, and Frequency Effects in Resonant-Column Testing

Proceedings of 62nd Canadian Geotechnical Conference and 10th Joint CGS/IAH-CNC Groundwater Conference. Geo-Halifax 2009. Halifax, Nova Scotia, Canada. September 20-24, 2009. Paper reference no. 357.

Camata, G., Biondi, S., De Matteis, G., **Lai, C.G.**, Spacone, E., Vanzi, I., Vasta, M.

Post Damage Assessment of the L'Aquila, Abruzzi April 6, 2009 Earthquake

Proceedings of COMPDYN 2009 ECCOMAS Thematic Conference on Computational Methods in Structural Dynamics and Earthquake Engineering M. Papadrakakis, N.D. Lagaros, M. Fragiadakis (Eds.) Rhodes, Greece, 22–24 June 2009.

Borg, R.C., Corigliano, M., **Lai, C.G.** and Pavese, A.

Large Scale 1-g Shaking Table Test of an Unanchored Earth-Retaining RC Diaphragm

Proceedings of International Conference on Performance-Based Design in Earthquake Geotechnical Engineering – from Case History to Practice – IS-Tokyo 2009. Tsukuba, Japan. June, 15 – 17, 2009.

Boni, M.P., Compagnoni, M., **Lai, C.G.**, Pergalani, F., Petrini, L., Petrini, V.

Sensitivity Analysis on the Buildings and Landslides Seismic Response to the Application of Artificial and Recorded Accelerograms

Proceedings, 14th World Conference on Earthquake Engineering. Beijing, China, October, 12-17, 2008.

Rivera, J.A., Petrini, L., **Lai, C.G.**

Do the Eurocode 8 Force-Based Design Provisions Lead to Safe and Predictable Seismic Response of RC Frame Structures ?

Proceedings, 14th World Conference on Earthquake Engineering. Beijing, China, October, 12-17, 2008. Paper Reference No. 08-02-0031.

Pessina, V., Scandella, L., Corigliano, M., Franceschina, G., **Lai, C.G.**

Seismic Risk Assessment of Italian Seaports: the Case of Ancona (Italy)

Proceedings, 14th World Conference on Earthquake Engineering. Beijing, China, October, 12-17, 2008. Reference No. S03-022.

Pasquali, R., **Lai, C.G.**, Corigliano, M.

Seismic Analysis and Design of Blockwork-Wharves Structures

Proceedings, 14th World Conference on Earthquake Engineering. Beijing, China, October, 12-17, 2008. Reference No. 04-02-0049.

Ornthammarath, T., Corigliano, M., **Lai, C.G.**

Artificial Neural Networks Applied to the Seismic Design of Deep Tunnels

Proceedings, 14th World Conference on Earthquake Engineering. Beijing, China, October, 12-17, 2008. Paper Reference No. 04-01-0088.

Bartolomei, A., **Lai, C.G.**, Corigliano, M., Tinti, S.

Earthquake and Tsunami Induced Damage to Seaport Structures in Italy: Application of GIS for Risk Reduction and Monitoring

Proceedings, 14th World Conference on Earthquake Engineering. Beijing, China, October, 12-17, 2008. Paper Reference No. 09-01-0106.

Ornthammarath, T., **Lai, C.G.**, Menon, A., Corigliano, M., Dodagoudar, G., Gonavaram, K.
Seismic Hazard Assessment at the Historical Site of Kancheepuram in South India
Proceedings, 14th World Conference on Earthquake Engineering. Beijing, China, October, 12-17, 2008. Paper Reference No. 07-0132.

Lai, C.G., Corigliano, M., Bhuiyan, M.T.R.
Comparison of Real Vs. Artificial Accelerograms in 1D Site Response Analysis
Proceedings, ECSMGE 2007, XIV European Conference on Soil Mechanics and Geotechnical Engineering, Madrid, Spain, September 24-27, 2007.

Corigliano, M., **Lai, C.G.**, Barla, G.
Seismic Vulnerability of Rock Tunnels Using Fragility Curves
Proceedings, ISRM 2007, 11th Congress of the International Society for Rock Mechanics, Lisbon, Portugal, July 9-13, 2007.

Borg, R.C. and **Lai, C.G.**
Seismic Performance, Analysis and Design of Wharf Structures: A Comparison of Worldwide Typologies
Proceedings, ICGEE 2007, 4th International Conference on Geotechnical Earthquake Engineering, Thessaloniki, Greece, June 25-28, 2007. Paper Reference 1760.

Rajeev, P., Franchin, P. **Lai, C.G.**, Pinto, P.
Numerical Modelling of Seismic Response of Cantilever Earth-Retaining Structures
Proceedings, ICGEE 2007, 4th International Conference on Geotechnical Earthquake Engineering, Thessaloniki, Greece, June 25-28, 2007. Paper Reference No 1269.

Corigliano, M., Scandella L., Barla G., **Lai C. G.**, Paolucci R.
Seismic Analysis of Deep Tunnels in Weak Rock: A Case Study in Southern Italy
Proceedings, ICGEE 2007, 4th International Conference on Geotechnical Earthquake Engineering, Thessaloniki, Greece, June 25-28, 2007. Paper Reference No 1616.

Ahmad, I., El Naggar, M.H., Khan, A.N., **Lai, C.G.**
Fixed Head Kinematic Pile Bending Moment Time History: Artificial Neural Network Approach
Proceedings, ICGEE 2007, 4th International Conference on Geotechnical Earthquake Engineering, Thessaloniki, Greece, June 25-28, 2007. Paper Reference 1661.

Juinarongrit, T., Kawamata, Y., Blandon, C.A., Ashford, S.A., Restrepo, J.I., Yin, P., Jaradat, O.A., Weismair, M., **Lai, C.G.**
Full-Scale Testing of Piles in Wharf-Foundation-Dike System
Proceedings, PORTS 2007, Eleventh International Conference on Ports and Harbor Facilities, San Diego, California, USA, March 25-28, 2007. Paper Reference No. 16915.

Menon, A., **Lai, C.G.**, A., Macchi, G., and Pavese, A.
Non-linear Analyses for Seismic Assessment of Ancient Masonry Towers
Proceedings, SAHC 2006, Fifth International Conference on Structural Analysis of Historical Constructions, New Delhi, India, November 6-8, 2006. P.B. Lourenço, P. Roca, C. Modena, S. Agrawal (Eds.), ISBN 972-8692-27-7.

Magenes, G., Prasad, A.M., Dodagoudar, G.R., **Lai, C.G.**, Macchi, G., Mathews, M.S., Menon, D., Menon, A., Pavese, A., and Penna, A.
Indo-Italian Joint Research Programme on Seismic Vulnerability of Historical Centres in South India
Proceedings, SAHC 2006, Fifth International Conference on Structural Analysis of Historical Constructions, New Delhi, India, November 6-8, 2006. P.B. Lourenço, P. Roca, C. Modena, S. Agrawal (Eds.), ISBN 972-8692-27-7.

Corigliano, M., **Lai, C.G.**, Barla, G.

Dynamic Response of Tunnel in Near-Fault Conditions

Proceedings, 1stECEES, First European Conference on Earthquake Engineering and Seismology, Geneva, Switzerland, September 3-8, 2006. Paper Reference No. 998.

Dall'Ara, A., **Lai, C.G.**, Strobbia, C.

Selection of Spectrum-Compatible Recorded Accelerograms for Nonlinear Seismic Response Analyses of Soil Deposits

Proceedings, 1stECEES, First European Conference on Earthquake Engineering and Seismology, Geneva, Switzerland, September 3-8, 2006. Paper Reference No. 1240.

Meza-Fajardo, K.C. and **Lai, C.G.**

Exact Causal Relationships between Attenuation and Phase Velocity in Linear Dissipative Media

Proceedings, 1stECEES, First European Conference on Earthquake Engineering and Seismology, Geneva, Switzerland, September 3-8, 2006. Paper Reference No. 624.

Lai, C.G., Foti, S. and Rix, G.J.

Forward and Inverse Modeling of Uncertainty in Surface Wave Propagation

Proceedings, GeoCongress 2006, "*Geotechnical Engineering in the Information Technology Age*", Atlanta, February 26-March 1, 2006. Paper Reference No. 11954.

Rix, G.J. and **Lai, C.G.**

Model-Based Uncertainty in Surface Wave Inversion

Proceedings, GeoCongress 2006, "*Geotechnical Engineering in the Information Technology Age*", Atlanta, February 26-March 1, 2006. Paper Reference No. 11904.

Pavese, A., **Lai, C.G.**, Calvi, G.M., Ceresa, P., Beltrami, C.

Reaction Mass and Foundation Design of the High Performance, One-Degree-of-Freedom EUCENTRE Shaking Table, in Pavia (Italy)

Proceedings, 1st International Conference on Advances in Experimental Structural Engineering, AESE, 2005. Nagoya, Japan, July, 19-21, 2005.

Menon, A., **Lai, C.G.**

Seismic Hazard Assessment of Jam in Afghanistan

Proceedings, 13th World Conference on Earthquake Engineering. Vancouver, B.C., Canada, August, 1-6, 2004. Paper Reference No. 2314.

Cherubini, C., D'Intinosante, V., Ferrini, M., **Lai, C.G.**, Lo Presti, D., Rainone, M.L., Signanini, P., Vessia, G.
Problems Associated with the Assessment of Local Site Effects Through a Multidisciplinary Integrated Study: the Case of Fivizzano's Town (Italy)

Proceedings, 5th International Conference on Case Histories in Geotechnical Engineering. New York, NY, April, 13-17, 2004. Paper Reference No 3.08.

Roma, V., Rix, G.J., **Lai, C.G.**, Hebel, G.L.

Geotechnical Soil Characterization Using Fundamental and Higher Rayleigh Modes Propagation in Layered Media

Proceedings, 12th European Conference on Earthquake Engineering. London, September 9-13, 2002. Paper Reference No.473.

Lai, C.G., Pallara, O., Lo Presti, D.C.F., Turco, E.

Low-Strain Stiffness and Material Damping Ratio Coupling in Soils

Advanced Laboratory Stress-Strain Testing of Geomaterials. Outcome of TC29 of ISSMGE From 1994 to 2001. Ed. F. Tatsuoka, S. Shibuya, & R. Kuwano. Balkema, pp. 265-274, 2001.

Rix, G.J., **Lai, C.G.**, Orozco, M.C., Hebel, G.L., Roma, V.

Recent Advances in Surface Wave Methods for Geotechnical Site Characterization

Proceedings, XV International Conference on Soil Mechanics and Geotechnical Engineering, Istanbul, Turkey, August 27-31, 2001, pp. 499-502.

Lai, C.G., Callerio, A., Faccioli, E., Martino, A.

Mathematical Modeling of Railway-Induced Ground Vibrations

Proceedings, 2nd International Workshop WAVE 2000 – Wave Propagation - Moving Load – Vibration Reduction, Ruhr University Bochum, December 13-15, 2000, Balkema, pp. 99-110.

Lai, C.G., Rix, G.J.

Inversion of Multi-Mode Effective Dispersion Curves

Proceedings, 2nd International Symposium on Pre-Failure Deformation Characteristics of Geomaterials, IS Torino 99, Torino, Italy, September 26-29, 1999, Vol. I, pp. 411-418.

Rix, G.J., **Lai, C.G.**, Foti, S., Zywicki, D.

Surface Wave Tests in Landfills and Embankments

Geotechnical Earthquake Engineering and Soil Dynamics III, ASCE Geotechnical Special Publication No. 75, Dakoulas, P., Yegian, M., and Holtz, R.D., Eds., pp. 1008-1019, 1998.

Rix, G.J., **Lai, C.G.**

Simultaneous Inversion of Surface Wave Velocity and Attenuation

Geotechnical Site Characterization, Edited by P.K. Robertson and P.W. Mayne, Vol. 1, pp.503-508, Proceedings of the First International Conference on Site Characterization – ISC'98/Atlanta, Georgia, USA, 19-22 April 1998.

Haker, C.D., Rix, G.J., **Lai, C.G.**

Dynamic Properties of Municipal Solid Waste Landfills from Surface Wave Tests

Proceedings, Symposium on the Application of Geophysics to Engineering and Environmental Problems, Reno, Nevada, USA, March 23-26, 1997.

Publicazione articoli non recensiti in congressi scientifici nazionali ed internazionali:

Derosa, R., Bozzoni, F., **Lai, C.G.**

Valutazione della Risposta Sismica di Dighe in Terra Mediante Approcci Semplificati: Applicazione a Casi di Studio in Sicilia

Atti del 16° Convegno Nazionale in Ingegneria Sismica, ANIDIS 2015, L'Aquila, 13-17 Settembre, 2015.

Scandella, L., **Lai, C.G.**, Bozzoni, F., Famà, A.

Seismic Damage Assessment of Earthfill Dams

Atti del 16° Convegno Nazionale in Ingegneria Sismica, ANIDIS 2015, L'Aquila, 13-17 Settembre, 2015.

Ceravolo, R., Chiorino, M.A., **Lai, C.G.**, Pecorelli, M.L., Zanotti Fragonara, L.

Analysis of Long-Term Monitoring Data to Assess the Efficacy of Tie-Bars Strengthening Interventions on a Large Historical Dome.

Proceedings, SHMII 2015, 7th International Conference on Structural Health Monitoring of Intelligent Infrastructure, Torino, Italy, July 1-3, 2015.

Lai, C.G., Özcebe, A.G.

Causal Damping Ratio Spectra and Dispersion Functions in Geomaterials from the Exact Solution of Kramers-Kronig Equations of Viscoelasticity

Proceedings, CMwM 2015, 2nd International Conference on “*Continuous Media with Microstructure*” in memory of Prof. Krzysztof Wilmański, Łagów, Poland, March 2-5, 2015.

Vlachakis, D., Pescara, M., **Lai, C.G.**

Seismic Response of Deep Tunnels: Comparison of Different Existing Methods

2nd Eastern European Tunnelling Conference “*Tunnelling in a Challenging Environment*” – Making Tunnelling Business in Difficult Times, Athens, Greece, 28 September – 01 October 2014. Greek Tunnelling Society.

Tarque, N., **Lai, C.G.**, Bozzoni, F., Miccadei, E., Piacentini, T., Camata, G., Spacone, E.

Evaluation of the Ground Motion Amplification at Poggio Picenze (Italy)

Proceedings, IAEG XII Congress, Torino 2014. *Engineering Geology for Society and Territory*. Torino, Italy, September 15–19, 2014.

Zembaty, Z., **Lai, C.G.**, Jaśkiewicz, K., Samokar, Z. and Minch, M.

The Application of Seismic Code Methodology in the Structural Design Against Mine Tremors.

Proceedings, 2nd European Conference on Earthquake Engineering and Seismology, Istanbul, Turkey. August, 25–29, 2014.

Zuccolo, E., Salazar, W., Di Sarno, L., Farrell, A., Gibbs, T., **Lai, C.G.**, Latchman, J.L., Lynch, L., and Workman, A.

Feasibility Study of a Regional EEW System for the Eastern Caribbean Region.

Proceedings, 2nd European Conference on Earthquake Engineering and Seismology, Istanbul, Turkey. August, 25–29, 2014.

Özcebe, A.G., **Lai, C.G.**, Martinelli, M.

Performance Based Stabilization of Seismically Unstable Slopes by Large Diameter Piles.

Proceedings, 2nd European Conference on Earthquake Engineering and Seismology, Istanbul, Turkey. August, 25–29, 2014.

Deyanova M., **Lai, C.G.**, Martinelli, M.

Numerical Study for the Assessment of the Seismic Response of Earth-Retaining Gravity Walls.

Proceedings, 2nd European Conference on Earthquake Engineering and Seismology, Istanbul, Turkey. August, 25–29, 2014.

Andreotti G., **Lai, C.G.**

Seismic Vulnerability of Deep Tunnels: Numerical Modeling for a Fully Nonlinear Dynamic Analysis.
Proceedings, 2nd European Conference on Earthquake Engineering and Seismology, Istanbul, Turkey. August, 25–29, 2014.

Corigliano, M., **Lai, C.G.**, Scandella, L., Spacone, E., Camata, G., Cantagallo, C., Spallarossa, D., Ghiretti, P.
Probabilistic Seismic Hazard Assessment at the European Extremely Large Telescope ("E-ELT") Project Site (Chile)

Proceedings, 10th U.S. National Conference on Earthquake Engineering. *Frontiers of Earthquake Engineering*. July, 21–25, 2014, Anchorage, Alaska (USA).

Tarque, N., Bozzoni, F., **Lai, C.G.**, Miccadei, E., Piacentini, T., Camata, G., Spacone, E.

Seismic Ground Response Analysis at the Site of San Felice Church in Poggio Picenze (L'Aquila, Italy)

Proceedings, 10th U.S. National Conference on Earthquake Engineering. *Frontiers of Earthquake Engineering*. July, 21–25, 2014, Anchorage, Alaska (USA).

Andreotti G., **Lai, C.G.**

Modello Numerico per la Valutazione della Vulnerabilità Sismica di Gallerie Profonde.

Atti del 25° Convegno Nazionale di Geotecnica, "La Geotecnica nella Difesa del Territorio e delle Infrastrutture dalle Calamità Naturali", Baveno, 4-6 Giugno, 2014.

Andreotti G., **Lai, C.G.**, Bozzoni, F., Scandella, L.

New Soil Factors for the Italian Building Code (NTC08) Derived from 1D fully Stochastic Ground Response Analyses

Atti del 15° Convegno Nazionale in Ingegneria Sismica, ANIDIS 2013, Padova, 30 Giugno-4 Luglio, 2013.

Trianni, S.C.T., **Lai, C.G.**, Pasqualini, E.

Probabilistic Seismic Hazard Assessment at a Strategic Site in the Bay of Bengal

Atti del 15° Convegno Nazionale in Ingegneria Sismica, ANIDIS 2013, Padova, 30 Giugno-4 Luglio, 2013.

Özcebe, A.G., **Lai, C.G.**, Fioravante, V., Giretti, D., Prearo, C.

Finite Difference Modeling of Slope Stabilization with Large Diameter Shafts

Proceedings, 10th International Congress on Advances in Civil Engineering, Middle East Technical University, Ankara, Turkey, 17-19 October 2012.

Zuccolo, E., Rota, M., **Lai, C.G.**, Taverna, L., Corigliano, M., Penna, A.

Definition of Spectrum-Compatible Natural Records for the Italian Territory

Proceedings, 15th World Conference on Earthquake Engineering. Lisbon, Portugal, September, 24-28, 2012. Paper Reference No. 1989.

Bozzoni, F., **Lai, C.G.**

Seismic Risk Assessment of Italian Seaports Using GIS Technology: the Ports of the Calabria Region

Proceedings, 15th World Conference on Earthquake Engineering. Lisbon, Portugal, September, 24-28, 2012. Paper Reference No. 2357.

Özcebe, A.G., **Lai, C.G.**, Fioravante, V., Giretti, D., Prearo, C.

Numerical and Physical Modeling of Slope Stabilization with Large Diameter Shafts

Proceedings, 15th World Conference on Earthquake Engineering. Lisbon, Portugal, September, 24-28, 2012. Paper Reference No. 2814.

Corigliano, M., **Lai, C.G.**, Rota, M., Penna, A.

Automatic Definition of Hazard-Compatible Accelerograms at Non-Rocky Sites

Proceedings, 15th World Conference on Earthquake Engineering. Lisbon, Portugal, September, 24-28, 2012. Paper Reference No. 3065.

Fioravante, V., Giretti, D., Prearo, C., **Lai, C.G.**

Static and Dynamic Centrifuge Modeling of Landslide Stabilization with Large-Diameter Shafts

Proceedings, 15th World Conference on Earthquake Engineering. Lisbon, Portugal, September, 24-28, 2012. Paper Reference No. 3263.

Calabrese, A., **Lai, C.G.**

Seismic Vulnerability Analysis of Wharf Structures Using Artificial Neural Networks

Proceedings, 15th World Conference on Earthquake Engineering. Lisbon, Portugal, September, 24-28, 2012. Paper Reference No. 4371.

Sanchez-Lizarraga, H., **Lai, C.G.**

Effect of Spatial Variability of Soil Properties on the Seismic Response of Earth Dams

Proceedings, 15th World Conference on Earthquake Engineering. Lisbon, Portugal, September, 24-28, 2012. Paper Reference No. 4367.

Calabrese, A., **Lai, C.G.**

A Neural Network Approach to Performance-Based Seismic Design of Blockwork Wharves

Proceedings, 2nd International Conference on Performance-Based Design in Earthquake Geotechnical Engineering, II PBD, Taormina, Italy, May 28 – 30, 2012. Paper No. 14.02.

Bozzoni, F., **Lai, C.G.**, Bianchi, A.

Application of GIS Technology to Seismic Risk Assessment of Calabrian Seaports in Italy

Proceedings, 2nd Mediterranean Days of Coastal and Port Engineering – Infrastructures, Logistics and Sustainability, Valencia, Spain, May 23 – 25, 2012.

Zuccolo, E., Corigliano, M., Taverna, L., **Lai, C.G.**

Meso-Zonazione di un Territorio per la Definizione di Accelerogrammi Reali Spettro-Compatibili

Atti del 14^o Convegno Nazionale in Ingegneria Sismica, ANIDIS 2011, Bari, 18-22 Settembre, 2011.

Sanchez, H.L., **Lai, C.G.**, Andres, F.A.R.

Use of Geostatistics and Random Field Theory to Account for Uncertainty and Spatial Variability of Soil Properties in Two-Dimensional Site Response Analyses

Proceedings 4th IASPEI/IAEE International Symposium: Effects of Surface Geology on Seismic Motion, ESG2011, University of California Santa Barbara, USA, August 23–26, 2011. Paper No. 17801.

Corigliano, M., **Lai, C.G.**, Pasquali, R.

Displacement-Based Seismic Design of Gravity Walls Using Double-Support Excitation

Proceedings 8th International Conference on Structural Dynamics, EUROODYN2011, Leuven, Belgium, July 4 – 6, 2011. Paper No. 571.

Agosti, M., Corigliano, M., **Lai, C.G.**

Dam-Surface Fault Rupture Interaction: A Case Study Near L'Aquila, Central Italy

Proceedings 14th European Conference on Earthquake Engineering, Skopje Ohrid, Republic of Macedonia, August 30 – September 3, 2010. Paper No. 1404.

Scandella, L., **Lai, C.G.**, Spallarossa, D., Corigliano, M.

Ground Shaking Scenarios at the Basilica with the World's Largest Elliptical Dome in Vicoforte, Northern Italy

Proceedings 14th European Conference on Earthquake Engineering, Skopje Ohrid, Republic of Macedonia, August 30 – September 3, 2010. Paper No. 970.

Ornthammarath, T., Douglas, J., Sigbjörnsson, R., **Lai, C.G.**

Assessment of strong ground motion variability in Iceland

Proceedings 14th European Conference on Earthquake Engineering, Skopje Ohrid, Republic of Macedonia, August 30 – September 3, 2010. Paper No. 1263.

Bozzoni, F., Corigliano, M., **Lai, C.G.**, Scandella, L., Salazar, W., Latchman, J., Lynch L., Robertson, R.
Probabilistic Seismic Hazard Assessment Study for the Eastern Caribbean Region
Proceedings 14th European Conference on Earthquake Engineering, Skopje Ohrid, Republic of Macedonia,
August 30 – September 3, 2010. Paper No. 920.

Bozzoni, F., Corigliano, M., **Lai, C.G.**, Scandella, L.
Seismic Risk Assessment of Italian Seaports Using GIS and Guidelines for Seismic Design
Proceedings 32nd PIANC MMX Congress, 125th Anniversary Liverpool UK, 10-14 May 2010.

Lai, C.G., Crempien de La Carrera, J.G.F.
On the Stability of the Inversion of Measured Seismic Wave Velocities to Estimate Porosity in Fluid-Saturated Porous Media
Proceedings in “*Continuous Media with Microstructure*“. Special Jubilee, International Conference on the Occasion of the 70th birthday of Prof. Krzysztof Wilmanski. Zielona Góra, Poland, March 20, 2010.

Lai, C.G., Corigliano, M., Sanchez, H.L.
Some Examples of 1D Fully Stochastic Site Response Analyses of Soil Deposits
Proceedings, ACES Workshop: “*Advances in Performance-Based Earthquake Engineering*“, Corfu, Greece, July 4-7, 2009. *Advances in Performance-Based Earthquake Engineering*. GGEE 13. Ed. Michael N. Fardis. Springer, pp. 15-26, June 2010. ISBN: 978-90-481-8745-4.

Menon, A., Corigliano, M., **Lai, C.G.**, Ornthammarath, T.
Extended Source Models versus Zone-Free Methods in Probabilistic Seismic Hazard Assessment
Atti del 13^o Convegno Nazionale in Ingegneria Sismica, ANIDIS 2009, Bologna, Giugno 28-Luglio 2, 2009.

Wijesundara, K.K., Bolognini, D., Nascimbene, R., Corigliano, M., **Lai, C.G.**
Real Vs Artificial Accelerograms in Time Histories Analyses of Brace Frame Structures
Atti del 13^o Convegno Nazionale in Ingegneria Sismica, ANIDIS 2009, Bologna, Giugno 28-Luglio 2, 2009.

Lai, C.G., Paolucci, R.
L’Input Sismico nelle Applicazioni di Ingegneria Geotecnica
Atti del XII Ciclo di Conferenze di Meccanica e Ingegneria delle Rocce di Torino dal titolo “*Opere Geotecniche in Condizioni Sismiche*“. Torino, Dicembre 2-3, 2008. Patron Editore. Capitolo 2. pp. 35-70.

Corigliano, M., **Lai, C.G.**, Borg, R.C. and Pavese, A.
Large-Scale Shaking Table Testing of Geotechnical Models
Atti del XII Ciclo di Conferenze di Meccanica e Ingegneria delle Rocce di Torino dal titolo “*Opere Geotecniche in Condizioni Sismiche*“. Torino, Dicembre 2-3, 2008. Patron Editore. Capitolo 6. pp. 145-177.

Bartolomei, A., Corigliano, M., **Lai, C.G.**
Seismic Risk Assessment of Italian Seaports Using GIS
Proceedings of Seismic Engineering International Conference Commemorating the 1908 Messina and Reggio Calabria Earthquake. MERCEA 2008. Reggio Calabria, July 8-11, 2008.

Comina, C., Corigliano, M., Foti, S., **Lai, C.G.**, Lancellotta, R., Leuzzi, F., Li Destri Nicosia, G., Paolucci, R., Pettiti, A., Psarropoulos, P.N. and Zanolì, O.
Parametric Study of Cantilever Walls Subjected to Seismic Loading
Proceedings of Seismic Engineering International Conference Commemorating the 1908 Messina and Reggio Calabria Earthquake. MERCEA 2008. Reggio Calabria, July 8-11, 2008.

Corigliano, M., Scandella, L., Barla, G., **Lai, C.G.**, Paolucci, R.
Aspetti Progettuali nell’Analisi Sismica di Gallerie Profonde
Proceedings, ANIDIS 2007, 12th Italian National Conference in Earthquake Engineering, Pisa, Italy, June 10-14, 2007. Paper Reference No 373.

Traversa, P., **Lai, C.G.**, Strobbia, C.

Feasibility Study of an Early Warning System in Northern Italy

Proceedings, ANIDIS 2007, 12th Italian National Conference in Earthquake Engineering, Pisa, Italy, June 10-14, 2007. Paper Reference No 375.

Gentile, R., **Lai, C.G.**

Indagine sulla Vulnerabilità Sismica delle Banchine Portuali Italiane

Proceedings, ANIDIS 2007, 12th Italian National Conference in Earthquake Engineering, Pisa, Italy, June 10-14, 2007. Paper Reference No 470.

Borzi, B., Dall'Ara, A., **Lai, C.G.**, Strobbia, C. and Ferrini, M.

Dynamic-Compatible Pseudo-Static Analysis of a Natural Slope

Proceedings, ANIDIS 2007, 12th Italian National Conference in Earthquake Engineering, Pisa, Italy, June 10-14, 2007. Paper Reference No 372.

Lai, C.G., Menon, A., Macchi, G.

Seismic Vulnerability of the Minaret of Jam in Afghanistan

Atti 11^a Conferenza Nazionale Ingegneria Sismica, ANIDIS04, Genova, Gennaio 25-29, 2004.

Lai, C.G., Foti, S., Godio, A., Sambuelli, L., Socco, V., Strobbia, C.

Moderni Metodi per l'Esecuzione ed Interpretazione delle Indagini Geofisiche

Atti del XVIII Ciclo di Conferenze di Geotecnica di Torino dal titolo "Indagini in Sito per la Caratterizzazione Meccanica ed Ambientale del Sottosuolo". Torino, Novembre 20-22, 2001.

Lo Presti, D.C.F., **Lai, C.G.**, Camelliti, A., Crespellani, T.

Analisi Non-Lineare della Risposta Sismica dei Terreni

Atti Convegno GeoBen2000, "Condizionamenti Geologici e Geotecnici nella Conservazione del Patrimonio Storico Culturale", Torino, June 8-9, 2000.

Foti, S., **Lai, C.G.**

Determinazione delle Proprietà Dinamiche dei Terreni Mediante l'Uso di Onde Superficiali

Atti della XX Conferenza Nazionale di Geotecnica, Parma, Italy, September 22-25, 1999.

Lai, C.G., Lo Presti, D.C.F., Pallara, O., Rix, G.J.

Misura Simultanea del Modulo di Taglio e dello Smorzamento Intrinseco dei Terreni a Piccole Deformazioni

Atti 9^a Conferenza Nazionale Ingegneria Sismica, ANIDIS99, Torino, Settembre 20-23, 1999.

Publicazione rapporti di ricerca:

Sanchez-Lizarraga, H., **Lai, C.G.**

Performance-Based Seismic Analysis and Design of Earth

Research Report prepared for European School for Advanced Studies in Reduction of Seismic Risk. Report No. ROSE–2012/02, IUSS Press. September, 2012, pp. 267.

Calabrese, A., **Lai, C.G.**

Performance-Based Seismic Design and Fragility Evaluation of Blockwork Wharf Structures

Research Report prepared for European School for Advanced Studies in Reduction of Seismic Risk. Report No. ROSE–2012/01, IUSS Press. September, 2012, pp. 303.

Lai, C.G., Bozzoni, F., Zuccolo, E., Salazar, W., Corigliano, M., Scandella, L., Robertson, R., Latchman, J., Lynch, L.

Probabilistic Seismic Hazard Assessment in the Eastern Caribbean Islands

Research Report prepared by European Centre for Training and Research in Earthquake Engineering. Report EUCENTRE–2012/01. IUSS Press, Pavia. March 2012, pp. 239.

Lai, C.G., Corigliano, M., Sanchez, H.L., Scandella, L.

Definition of Seismic Input at the “Regina Montis Regalis” Cathedral of Vicoforte, Northern Italy

Research Report prepared by European Centre for Training and Research in Earthquake Engineering. Report EUCENTRE–2009/03. IUSS Press, Pavia. October 2009, pp. 386.

Lai, C.G., Menon, A., Corigliano, M., Ornthammarath, T., Sanchez, H.L., Dodagoudar, G. R.

Probabilistic Seismic Hazard Assessment and Stochastic Site Response Analysis at the Archaeological Site of Kancheepuram in Southern India

Research Report prepared by European Centre for Training and Research in Earthquake Engineering. Report EUCENTRE–2009/01. IUSS Press, Pavia. May 2009. pp. 224.

Lai, C.G., Strobbia, C., Dall’Ara, A.

Terremoto di Progetto e Analisi di Risposta Sismica Stocastiche nei Territori Toscani della Garfagnana e Lunigiana

Rapporto di ricerca preparato per il Centro Europeo di Formazione e Ricerca in Ingegneria Sismica. Rapporto EUCENTRE No. 2008/01. IUSS Press, Pavia. Febbraio 2008, pp. 210.

Beltrami, C., **Lai, C.G.**, and Pecker, A.

Seismic Soil-Structure Interaction in Large Diameter Shaft Foundations

Research Report prepared for European School for Advanced Studies in Reduction of Seismic Risk. Report No. ROSE–2006/07, IUSS Press. October, 2006, pp. 197.

Lai, C.G., Rix, G.J.

Simultaneous Inversion of Rayleigh Phase Velocity and Attenuation for Near- Surface Site Characterization

Contract Report prepared for the National Science Foundation under Grant No. CMS-9402358, and the U.S. Geological Survey, Department of Interior, Award No. 1434-95-G-2634, Report No. GIT-CEE/GEO-98-2, July, 1998, pp. 258.

Rix, G.J., **Lai, C.G.**, Spang, A.W.

In Situ Measurements of Damping Ratio Using Surface Waves

Contract Report prepared for U.S. Geological Survey, Department of Interior, Award No. 1434-95-G-2634, Report No. GIT-CEE/GEO-97-1, Georgia Institute of Technology, School of Civil and Environmental Engineering, February, 1997, pp. 44.

Baker, N.B., Rix, G.J., **Lai, C.G.**, Conrad, D., Grum, P.

Applying Geotechnical Soil Property Analysis Techniques to a Knowledge-Based System for Inference of Soil Strength Properties

Contract Report prepared for U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS, Georgia Institute of Technology, School of Civil and Environmental Engineering, April, 1995.

Altre pubblicazioni:

Nazarian, S., **Lai, C.G.**, Loizos, A., Gomes-Correia, A.

Evaluation of Subsurface Sensing Devices as Related to Pavement Geotechnique

Proceedings, 18th International Conference on Soil Mechanics and Geotechnical Engineering – 18th ICSMGE. “Challenges and Innovations in Geotechnics”. September 2-6, 2013, Paris, France.

Andreotti G., **Lai, C.G.**, Bozzoni, F., Scandella, L.

Hazard-Dependent Soil Amplification Factors Derived from 1D Fully Stochastic Ground Response Analyses

Proceedings, International Conference Earthquake Geotechnical Engineering – ICEGE 2013. “From Case History to Practice in Honour of Prof. Kenji Ishihara”. June 17-19, 2013, Istanbul, Turkey.

Andreotti G., **Lai, C.G.**, Martinelli, M.

Seismic Fragility Functions of Deep Tunnels: A New Cumulative Damage Model Based on Lumped Plasticity and Rotation Capacity

Proceedings, International Conference Earthquake Geotechnical Engineering – ICEGE 2013. “From Case History to Practice in Honour of Prof. Kenji Ishihara”. June 17-19, 2013, Istanbul, Turkey.

Taverna, L., Zuccolo, E., Corigliano, M., Rota, M., **Lai, C.G.**, Penna, A.

SEISM-HOME: Selection of Input Strong-Motion for Homogeneous Megazones

Proceedings 30th Italian National GNGTS (National Group of Geophysics of Solid Earth) Congress. Trieste, 14-17 November, 2011.

Zuccolo, E., Corigliano, **Lai, C.G.**

Seismic Hazard of Italy using a Zone-Free Approach

Proceedings 29th Italian National GNGTS (National Group of Geophysics of Solid Earth) Congress. Prato, 26-28 October, 2010.

Zuccolo, E., Corigliano, **Lai, C.G.**, Bozzoni, F., Scandella, L., Salazar, W.

Zone-Free Approach Applied to Subduction Zone in the Eastern Caribbean Islands

Proceedings 29th Italian National GNGTS (National Group of Geophysics of Solid Earth) Congress. Prato, 26-28 October, 2010.

Scandella, L., **Lai, C.G.**, Spallarossa, D., Corigliano, M.

Deterministic Ground Shaking Scenarios at Vicoforte Sanctuary (Northern Italy)

Atti 28^o Congresso Nazionale GNGTS (Gruppo Nazionale di Geofisica della Terra Solida). Trieste, 16-19 November, 2009.

Lai, C.G., Corigliano, M., Agosti, M.

Diga Rio Fucino: Interazione con la Faglia di Campotosto (AQ)

Atti 28^o Congresso Nazionale GNGTS (Gruppo Nazionale di Geofisica della Terra Solida). Trieste, 16-19 November, 2009.

Lai, C.G., Corigliano, M., Sanchez, H.

Analisi di Risposta Sismica Stocastiche Monodimensionali

Atti 27^o Congresso Nazionale GNGTS (Gruppo Nazionale di Geofisica della Terra Solida). Trieste, 6-8 Ottobre, 2008.

Lai, C.G., Petrini, L., Strobbia, C.

Prestazioni Attese e Descrizione dell’Input Sismico: Logiche Attuali e del Prossimo Futuro. L’Edilizia, Ingegneria, Materiali, Tecnologia, N. 145, anno 2006, pp. 42-48.

Lai, C.G., Menon, A., Macchi, G.

Sismicità e Terremoto di Progetto al Sito di Jam in Afghanistan

Atti Incontro Annuale Ricercatori di Geotecnica, IARG 2003, Potenza, 18-20 Giugno 2003.

Foti, S., Lai, C.G., Rix, G.J.

Discussion: "Deformation of Landfill from Measurements of Shear Wave Velocity and Damping". Géotechnique, 52, No. 6, pp. 465-467, August 2002.

Lai, C.G., Foti, S., Lancellotta, R.

Determinazione della Porosità in Mezzi Porosi Saturi da Misure di Velocità delle Onde Sismiche

Atti Incontro Annuale Ricercatori di Geotecnica, IARG 2002, Napoli, 19-21 Giugno 2002.

Lai, C.G., Pallara, O., Lo Presti, D.C.F., Turco, E.

Accoppiamento tra Velocità di Propagazione delle Onde di Taglio e Fattore di Smorzamento Intrinseco dei Terreni a Piccole Deformazioni

Atti Incontro Annuale Ricercatori di Geotecnica, IARG 2001, Milano, 10-11 Maggio 2001.

Lo Presti, D.C.F., Lai, C.G., Camelliti, A., Puci, I.

ONDA: Un Codice di Calcolo per l'Analisi Non-Lineare della Risposta Sismica dei Terreni

Atti Incontro Annuale Ricercatori di Geotecnica, IARG 2001, Milano, 10-11 Maggio 2001.

Lo Presti, D.C.F. Lai, C.G.

Shear Wave Velocity from Penetration Tests

Atti del Dipartimento Ingegneria Strutturale, Politecnico di Torino, Italy, December 1989.