

CONTENTS OF GÉOTECHNIQUE VOLUME LV

February, March, April, May, June, August, September, October, November, December 2005

No. 1, 1–94; No. 2, 95–188; No. 3, 189–266; No. 4, 267–343; No. 5, 345–422; No. 6, 423–496; No. 7, 497–573; No. 8, 575–628; No. 9, 629–705; No. 10, 707–782

Editorial. <i>Professor M. A. Hicks</i>	1
Random field characterisation of stress-normalised cone penetration testing parameters. <i>M. Uzielli, G. Vannucchi and K.-K. Phoon</i>	3
3D effects in seismic liquefaction of stochastically variable soil deposits. <i>R. Popescu, J. H. Prevost and G. Deodatis</i>	21
On horizontal variability in lime-cement columns in deep mixing. <i>S. Larsson, H. Stille and L. Olsson</i>	33
Characterisation of model uncertainties for laterally loaded rigid drilled shafts. <i>K.-K. Phoon and F. H. Kulhawy</i>	45
Reliability of traditional retaining wall design. <i>G. A. Fenton, D. V. Griffiths and M. B. Williams</i>	55
Reliability-based design applied to retaining walls. <i>B. K. Low</i>	63
Probabilistic assessment of stability of a cut slope in residual soil. <i>H. El-Ramly, N. R. Morgenstern and D. M. Cruden</i>	77
Realistic assessment of slope reliability for effective landslide hazard management. <i>R. W. M. Cheung and W. H. Tang</i>	85
Non-parametric simulation of geotechnical variability. <i>P. L. Bourdeau and J. I. Amundaray</i>	95
Towards reliable and effective site investigations. <i>M. B. Jaksa, J. S. Goldworthy, G. A. Fenton, W. S. Kaggwa, D. V. Griffiths, Y. L. Kuo and H. G. Poulos</i>	109
Stochastic evaluation of static liquefaction in a predominantly dilative sand fill. <i>M. A. Hicks and C. Onisiphorou</i>	123
A deterministic/stochastic model to predict the variation in bulk modulus of chalk. <i>F. Collin, Ch. Schroeder, V. De Gennaro and A. Bolle</i>	135
A generic approach to soil–structure interaction considering the effects of soil heterogeneity. <i>D. Breyse, H. Niandou, S. Elachachi and L. Houy</i>	143
Probabilistic limiting tolerable displacements for serviceability limit state design of foundations. <i>L. M. Zhang and A. M. Y. Ng</i>	151
Influence of soil heterogeneity on load redistribution and settlement of a hyperstatic three-support frame. <i>L. Houy, D. Breyse and A. Denis</i>	163
Geostatistical method for analysing soil displacement from underground urban construction. <i>M. El Gonnouni, Y. Riou and P. Y. Hicher</i>	171
<i>Technical note</i>	
Rainfall-induced slope failure considering variability of soil properties. <i>L. L. Zhang, L. M. Zhang and W. H. Tang</i>	183
The influence of soil anisotropy and K_0 on ground surface movements resulting from tunnel excavation. <i>J. N. Franzius, D. M. Potts and M. D. Bolton</i>	189
An experimental investigation of the mechanical behaviour of an unsaturated gneiss residual soil. <i>M. M. Futai and M. S. S. Almeida</i>	201
A shear strength model for realised infilled joints under constant normal stiffness. <i>B. Indraratna, H. S. Welideniya and E. T. Brown</i>	215
One-dimensional consolidation of lumpy clay with non-linear properties. <i>L.-A. Yang and T.-S. Tan</i>	227
Mechanisms of rupture of shaft linings in coal mine areas buried by thick over-soils in East China. <i>W. P. Li and X. Q. Li</i>	237
<i>Technical notes</i>	
Crushing a weak granular material: experimental numerical analyses. <i>S. Lobo-Guerrero and L. E. Vallejo</i>	245
Pore pressure coefficient for soil and rock and its relation to compressional wave velocity. <i>J. Yang</i>	251
<i>Discussion</i>	
Laboratory investigation of multiple grout injections into clay. <i>K. Soga, S. K. A. Au, M. R. Jafari and M. D. Bolton</i>	257
An alternative mechanism of pile failure in liquefiable deposits during earthquakes. <i>S. Bhattacharya, S. P. G. Madabhushi and M. D. Bolton</i>	259
Book review	265
Géotechnique Reviewers	266
A review of Beliche Dam. <i>E. E. Alonso, S. Olivella and N. M. Pinyol</i>	267
Field trials of suction caissons in clay for offshore wind turbine foundations. <i>G. T. Houlsby, R. B. Kelly, J. Huxtable and B. W. Byrne</i>	287
Numerical modelling of plane strain tests on sands using a particulate approach. <i>W. Powrie, Q. Ni, R. M. Harkness and X. Zhang</i>	297
Coupling of hydraulic and mechanical behaviour in unsaturated compacted clay. <i>A. Tarantino and S. Tombolato</i>	307
<i>Technical notes</i>	
The horizontal failure mechanism of the Wilnis peat dyke. <i>S. van Baars</i>	319
Effect of confining pressure on the degradation of ballast under cyclic loading. <i>B. Indraratna, J. Lackenby and D. Christie</i>	325
Method to compare water content values determined on the basis of different oven-drying temperatures. <i>B. C. O'Kelly</i>	329
<i>Discussion</i>	
Microstructure in shear band observed by microfocus X-ray computed tomography. <i>M. Oda, T. Takemura and M. Takahashi</i>	333
Effects of ageing on small-strain stiffness of overconsolidated clays. <i>K. I. Rammah, D. V. Val and A. M. Puzrin</i>	336
Uplift resistance of buried submarine pipelines: comparison between centrifuge modelling and full-scale tests. <i>A. C. Palmer, D. J. White, A. J. Baumgard, M. D. Bolton, A. J. Barefoot, M. Finch, T. Powell, A. S. Faranski and J. A. S. Baldry</i>	338

Book review	341
Errata	342
Cone penetration tests under simulated field conditions. <i>A.-B. Huang and H.-H. Hsu</i>	345
Generalised scaling relations for dynamic centrifuge tests. <i>S. Iai, T. Tobita and T. Nakahara</i>	355
Review of historical buildings' foundations. <i>J. Przewłócki, I. Dardzińska and J. Świniański</i>	363
The concept of stored plastic work or frozen elastic energy in soil mechanics. <i>I. F. Collins</i>	373
Elastic moduli of soils dependent on pressure: a hyperelastic formulation. <i>G. T. Houslby, A. Amorosi and E. Rojas</i>	383
Laboratory investigation of permeability measurement in clay using outflow from unsupported cavities. <i>C. C. Hird and S. Srisakthivel</i>	393
<i>Technical notes</i>	
Shear-plate transducers as a possible alternative to bender elements for measuring G_{max} . <i>M. A. Ismail and K. I. Rammah</i>	403
Rayleigh surface waves in an idealised partially saturated soil. <i>J. Yang</i>	409
<i>Discussion</i>	
Editorial. <i>G. T. Houslby</i>	415
British PhD Theses: 2004.	418
The effects of disseminated methane hydrate on the dynamic stiffness and damping of a sand. <i>C. R. I. Clayton, J. A. Priest and A. I. Best</i>	423
Simple plasticity-based prediction of the undrained settlement of shallow circular foundations on clay. <i>A. S. Osman and M. D. Bolton</i>	435
A generalised Winkler model for the behaviour of shallow foundations. <i>G. T. Houslby, M. J. Cassidy and I. Einav</i>	449
Soil–pipe interaction due to tunnelling: comparison between Winkler and elastic continuum solutions. <i>A. Klar, T. E. B. Vorster, K. Soga and R. J. Mair</i>	461
Shear strength of cohesionless soils at low stress. <i>R. J. Fannin, A. Eliadorani and J. M. T. Wilkinson</i>	467
Partial factors calibration based on reliability analyses for square footings on granular soils. <i>Y. Honjo and S. Amatya</i>	479
<i>Discussion</i>	
N_q factor for pile foundations by Berezantzev. <i>Y. M. Cheng</i>	493
Book reviews	495
Modelling of a 3D excavation in finite element analysis. <i>L. Zdravkovic, D. M. Potts and H. D. St John</i>	497
Energy and variational principles for piles in dissipative soil. <i>I. Einav</i>	515
A field permeability measurement technique using a conventional self-boring pressuremeter. <i>S. Ratnam, K. Soga and R. W. Whittle</i>	527
Imaging heterogeneities with electrical impedance tomography: laboratory results. <i>A. Borsic, C. Comina, S. Foti, R. Lancellotta and G. Musso</i>	539
A three-dimensional upper-bound approach to slope stability analysis based on RFEM. <i>J. Chen, J.-H. Yin and C. F. Lee</i>	549
Field simulation of in situ water content and temperature changes due to ground–atmospheric interactions. <i>Y. J. Cui, Y. F. Lu, P. Delage and M. Riffard</i>	557
<i>Technical notes</i>	
Estimation of soil–water characteristics using liquid limit state. <i>S.-G. Sung, I.-M. Lee, G.-C. Cho and L. N. Reddi</i>	569
An experimental investigation of work dissipation in crushable materials. <i>A. Tarantino and A. F. L. Hyde</i>	575
Numerical analysis of a landslide in soils with strain-softening behaviour. <i>A. Troncone</i>	597
<i>Technical notes</i>	
Strength and deformation characteristics of flat and cubical rubber tyre chip–sand mixtures. <i>D. T. Bergado, S. Youwai and A. Rittirong</i>	603
Complete limiting stress solutions for the bearing capacity of strip footings on a Mohr–Coulomb soil. <i>C. C. Smith</i>	607
Hydrophobic modification of an expansive soil using polymers and organic compounds: a comparative study with lime. <i>J. Hernández, S. Vargas, M. Estévez, G. Vázquez, A. Zepeda and R. Rodríguez</i>	613
DEM analysis of crushing around driven piles in granular materials. <i>S. Lobo-Guerrero and L. E. Vallejo</i>	617
<i>Discussion</i>	
Towards reliable and effective site investigations. <i>M. B. Jaksa, J. S. Goldsworthy, G. A. Fenton, W. S. Kaggwa, D. V. Griffiths, Y. L. Kuo and H. G. Poulos</i>	625
Contribution of fines to the compressive strength of mixed soils. <i>Q. Ni, T. S. Tan, G. R. Dasari and D. W. Hight</i>	627
Introduction for 45th Rankine Lecture 23 March 2005	629
Long-term performance of contaminant barrier systems. <i>R. K. Rowe</i>	631
Limiting cavity depth for spudcan foundations penetrating clay. <i>M. S. Hossain, Y. Hu, M. F. Randolph and D. J. White</i>	679
<i>Technical notes</i>	
Correlation of surface fractal dimension with frictional angle at critical state of sands. <i>Y. F. Xu and D. A. Sun</i>	691
A physical justification for $\log e - \log \sigma$ based on fractal crushing and particle kinematics. <i>G. R. McDowell</i>	697
Seismic passive resistance by pseudo-dynamic method. <i>D. Choudhury and S. Nimbalkar</i>	699
Non-steady flow in the variable-head permeability test. <i>J. J. Nader</i>	703

Award-winning papers in 2004	705
Editorial. <i>Professor G. T. Houlsby</i>	707
Scale effects on tension capacity for rough piles buried in dense sand. <i>B. M. Lehane, C. Gaudin and J. A. Schneider</i>	709
The influence of the <i>in situ</i> state of sands on the load–deflection behaviour of driven piles. <i>M. R. Coop, E. U. Klotz and L. Clinton</i>	721
Linear matching method for limit load problems using the Drucker-Prager yield condition. <i>M. Boulbibane and A. R. S. Ponter</i>	731
Influence of base suction on extraction of jack-up spudcans. <i>O. A. Purwana, C. F. Leung, Y. K. Chow and K. S. Foo</i>	741
<i>Technical notes</i>	
Depth factors for undrained bearing capacity. <i>D. H. Edwards, L. Zdravkovic and D. M. Potts</i>	755
Measurement of pore water pressure of clay-infilled rock joints during triaxial shearing. <i>B. Indraratna and M. Jayanathan</i>	759
Obituary	765
Book reviews	769
Contents of Volume 55	771
Index to Volume 55	775