

Géotechnique - Rankine Lectures



GÉOTECHNIQUE
Facts, figures and history

The Rankine Lecture is hosted in March each year by the British Geotechnical Association. It is widely viewed as the most prestigious of the invited lectures in geotechnics. The lecture commemorates W.J.M. Rankine, Professor of Civil Engineering at Glasgow University, who was one of the first engineers in the UK to make a significant contribution to soil mechanics, and is best known for his theory for the earth pressure on retaining walls. From 1961 to 1972 the lecture was held at the Institution of Civil Engineers, but since 1973 has taken place at Imperial College. In even-numbered years the lecturer is from the UK, and in odd-numbered years from overseas. Each lecture is published in Géotechnique, together with the text of the biographical introduction and the vote of thanks. Details of past Rankine Lectures are:

	Year	Lecturer	Title	Publication details
1	1961	Prof. A. Casagrande, Harvard University, USA	Control of seepage through foundations and abutments of dams	Vol. 11, No. 3, pp 161-181
2	1962	Dr L.F. Cooling, Building Research Station, UK	Field measurements in soil mechanics	Vol. 12, No. 2, pp 77-103
3	1963	A. Mayer, France	Recent work in rock mechanics	Vol. 13, No. 2, pp 99-118

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4	1964	Prof. A.W. Skempton, Imperial College, UK	Long-term stability of clay slopes	Vol. 14, No. 2, pp 77-101
5	1965	Prof. N.M. Newmark, University of Illinois, USA	Effects of earthquakes on dams and embankments	Vol. 15, No. 2, pp 139-159
6	1966	Prof. A.W. Bishop, Imperial College, UK	The strength of soils as engineering materials	Vol. 16, No. 2, pp 91-128
7	1967	Dr L. Bjerrum, Norwegian Geotechnical Institute	Engineering geology of Norwegian normally-consolidated marine clays as related to settlements of buildings	Vol. 17, No. 2, pp 83-117
8	1968	R. Glossop, John Mowlem & Co. Ltd, UK	The rise of geotechnology and its influence on engineering practice	Vol. 18, No. 2, pp 107-150
9	1969	Prof. R.B. Peck, University of Illinois, USA	Advantages and limitations of the observational method in applied soil mechanics	Vol. 19, No. 2, pp 171-187
10	1970	Prof. K.H. Roscoe, University of Cambridge, UK	The influence of strains in soil mechanics	Vol. 20, No. 2, pp 129-170
11	1971	Prof. J.C. Jaeger, Australian National University, Canberra	Friction of rocks and stability of rock slopes	Vol. 21, No. 2, pp 97-134
12	1972	Prof. P.W. Rowe, University of Manchester, UK	The relevance of soil fabric to site investigation practice	Vol. 22, No. 2, pp 195-300
13	1973	Prof. T.W. Lambe, Massachusetts Institute of Technology, USA	Predictions in soil engineering	Vol. 23, No. 2, pp 151-201
14	1974	Prof. R.E. Gibson, King's College, London, UK	The analytical method in soil mechanics	Vol. 24, No. 2, pp 115-139

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15	1975	Prof. J. Kerisel, Simecsol Études, France	Old structures in relation to soil conditions	Vol. 25, No. 3, pp 433-482
16	1976	Dr A.C. Meigh, Soil Mechanics Ltd, UK	The Triassic rocks, with particular reference to predicted and observed performance of some major foundations	Vol. 26, No. 3, pp 393-451
17	1977	V.F.B. de Mello, Brazil	Reflections on design decisions of practical significance to embankment dams	Vol. 27, No. 3, pp 281-354
18	1978	Dr W.H. Ward, Building Research Establishment, UK	Ground supports for tunnels in weak rocks	Vol. 28, No. 2, pp 135-170
19	1979	Prof. H. Bolton Seed, University of California, Berkeley, USA	Considerations in the earthquake-resistant design of earth and rockfill dams	Vol. 29, No. 3, pp 215-262
20	1980	Prof. A.N. Schofield, Cambridge University, UK	Cambridge geotechnical centrifuge operations	Vol. 30, No. 3, pp 227-267
21	1981	Prof. N.R. Morgenstern, University of Alberta, Canada	Geotechnical engineering and frontier resource development	Vol. 31, No. 3, pp 305-365
22	1982	Dr D.J. Henkel, Ove Arup & Partners, UK	Geology, geomorphology and geotechnics	Vol. 32, No. 3, pp 175-194
23	1983	E. Hoek, Golder Associates, Canada	Strength of jointed rock masses	Vol. 33, No. 3, pp 187-222
24	1984	Prof. C.P. Wroth, University of Oxford, UK	The interpretation of in situ soil tests	Vol. 34, No. 4, pp 449-488
25	1985	Prof. N. Janbu, Norwegian Institute of Technology	Soil models in offshore engineering	Vol. 35, No. 3, pp 241-280

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26	1986	Dr A.D.M. Penman, UK	On the embankment dam	Vol. 36, No. 3, pp 303-347
27	1987	Prof. R.F. Scott, California Institute of Technology, USA	Failure	Vol. 37, No. 4, pp 423-466
28	1988	Prof. H.B. Sutherland, University of Glasgow, UK	Uplift resistance in soils	Vol. 38, No. 4, pp 493-515
29	1989	Prof. H.G. Poulos, University of Sydney, Australia	Pile behaviour - theory and application	Vol. 39, No. 3, pp 365-415
30	1990	Prof. J.B. Burland, Imperial College, UK	On the compressibility and shear strength of natural clays	Vol. 40, No. 3, pp 329-378
31	1991	Prof. J.K Mitchell, University of California, Berkeley, USA	Conduction phenomena: from theory to geotechnical practice	Vol. 41, No. 3, pp 299-339
32	1992	Dr B. Simpson, Arup Geotechnics, UK	Retaining structures: displacement and design	Vol. 42, No. 4, pp 541-576
33	1993	Prof. K. Ishihara, University of Tokyo, Japan	Liquefaction and flow failure during earthquakes	Vol. 43, No. 3, pp 351-414
34	1994	Prof. P.R. Vaughan, Imperial College, UK	Assumption, prediction and reality in geotechnical engineering	Vol. 44, No. 4, pp 573-608
35	1995	Prof. R.E. Goodman, University of California, Berkeley, USA	Block theory and its application	Vol. 45, No. 3, pp 383-422
36	1996	Prof. S.F. Brown, University of Nottingham, UK	Soil mechanics in pavement engineering	Vol. 46, No. 3, pp 383-425

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38	1998	Dr D.W. Hight, Geotechnical Consulting Group, U.K.	Soil characterisation: the importance of structure and anisotropy	Not published
39	1999*	Prof. S. Leroueil, Université Laval, Canada	Natural slopes and cuts: movement and failure mechanisms	Vol. 51, No. 3, pp 197-243 (2001)
40	2000	Prof. J.H Atkinson, City University, UK	Non-linear soil stiffness in routine design	Vol. 50, No. 5, pp 487-507
41	2001	Prof. H. Brandl, Austria	Energy foundations and other thermo-active ground structures	Vol. 56, No. 2, pp 81-122 (2006)
42	2002	Prof. D.M. Potts, Imperial College, UK	Numerical analysis: a virtual dream or practical reality?	Vol. 53, No. 6, pp 535-572 (2003)
43	2003	Prof. M.F. Randolph, The University of Western Australia	Science and empiricism in pile foundation design	Vol. 53, No. 10, pp 847-874
44	2004	Prof. N.N. Ambraseys, Imperial College, UK	Engineering, seismology and soil mechanics	Not published
45	2005	Prof. R.K. Rowe, Queen's University, Kingston, Canada	Long-term performance of contaminant barrier systems	Vol. 55, No. 9, pp 631-678
46	2006	Prof. R.J. Mair, Cambridge University, UK	Tunnelling and geotechnics - new horizons	Vol 58, No 9
47	2007	Prof. A. Gens, Spain	Soil-environment interactions in geotechnical engineering	To be published in Issue 1 of 2010
48	2008	Dr. J. A. Charles	The engineering behaviour of fill materials: the use, misuse and disuse of case histories	Vol. 58, No. 7, pp 541-570
49	2009	Tom O'Rourke, Cornell University, US	Geohazards & Large Geographically Distributed Systems	Received – under peer review

50	2010	Chris Clayton, Southampton University, UK	Stiffness at small strain - research and practice	To be presented on 17 March 2010 at the Imperial College
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* Prof. J.R. Booker, University of Sydney, Australia was invited to give the 1999 Rankine Lecture, but died in January 1998.

Rankine Lecture trivia:

- 23 lecturers have been from the UK, 8 from the USA, 4 from Canada, 3 from Australia, 2 each from France and Norway, and 1 each from Austria, Brazil, Japan, South Africa and Spain.
- The longest Rankine Lecture paper is 106 pages, by Prof. P.W. Rowe (1972), although much of that is figures and plates.
- Two Rankine Lecturers share the initials REG.
- The youngest Rankine Lecturer is believed to be Brian Simpson, who was 44 when he delivered his lecture in 1992.
- 6 Lecturers have been from Imperial College, 3 from BRS/BRE (including Penman who had retired), 3 each from Berkeley and Cambridge University, 2 each from University of Illinois, Mowlem/Soil Mechanics Ltd and Ove Arup. No other institution can boast multiple Rankine Lecturers.
- Only one Rankine Lecture (Prof. R.E. Goodman, 1995) includes the words and music for a song.