



### **Professor Rodney Hill (1921 – 2011)**

Rodney Hill, *The mathematical theory of plasticity*, Clarendon Press, 1998, 355 pages

(From Wikipedia, the free encyclopedia:  
[http://en.wikipedia.org/wiki/Rodney\\_Hill](http://en.wikipedia.org/wiki/Rodney_Hill) )

Rodney Hill FRS (11 June 1921 – 2 February 2011) was an applied mathematician and a former Professor of Mechanics of Solids at Gonville and Caius College, Cambridge, UK.

In 1953 he was appointed Professor of Applied Mathematics at Nottingham University. His 1950 *The Mathematical Theory of Plasticity* forms the foundation of Plasticity Theory. Hill is widely regarded as among the foremost contributors to the foundations of solid mechanics over the second half of the 20th century. His early work was central to founding the mathematical theory of plasticity. This deep interest led eventually to general studies of uniqueness and stability in nonlinear continuum mechanics, work which has had a profound influence on the field of solid mechanics - theoretical, computational and experimental alike - over the past decades. Hill was the founding editor of the *Journal of the Mechanics and Physics of Solids*, still among the principal journals in the field.

His work is recognized world wide for the spare and concise style of presentation and for its exemplary standards of scholarship. Elsevier, in collaboration with IUTAM, has set up a quadrennial award in the field of solid mechanics. It will be known as the Rodney Hill Prize and the first award was presented at ICTAM in Adelaide in August 2008. The prize consists of a plaque and a cheque for US\$25,000 to the winner. Its first recipient is Michael Ortiz, for his contribution to Nonconvex plasticity and deformation microstructures (California Institute of Technology, USA).

He won the Royal Medal in 1993 for his contribution to the theoretical mechanics of soil and the plasticity of solids. He was elected a Fellow of the Royal Society in 1961. He was awarded an Honorary Degree (Doctor of Science) by the University of Bath in 1978.

Famous work: Hill R., *The Mathematical Theory of Plasticity*, Oxford Classic Texts in the Physical Sciences, Oxford University Press, 1950.