



## **Professor Raymond W. Ogden**

See:

<http://www.maths.gla.ac.uk/~rwo/>

<http://www.abdn.ac.uk/engineering/people/details.php?id=r.ogden>

<http://www.amazon.com/gp/aw/s?i=stripbooks&field-author=Raymond%20W.%20Ogden>

[http://en.wikipedia.org/wiki/Koiter\\_Medal](http://en.wikipedia.org/wiki/Koiter_Medal)

<http://academic.research.microsoft.com/Author/12799392/ray-w-ogden>

6th Century Chair in Solid Mechanics

University of Aberdeen, King's College, Aberdeen AB24 3UE

### **Distinctions:**

Awarded the William Prager Medal of the Society of Engineering Science (SES), 2010

Elected Fellow of the Royal Society of London (FRS), 2006

Awarded the Warner T. Koiter Medal of the American Society of Mechanical Engineers (ASME), 2005

Elected Fellow of the Royal Society of Edinburgh (FRSE), 1987

### **Previous Positions:**

George Sinclair Professor of Mathematics, University of Glasgow (1984-2010)  
Head of Mathematics Department, University of Glasgow (1986-1994)  
Professor of Mathematics, Brunel University (1981-1984)  
Reader in Mathematics, University of Bath (1976-1980)  
Lecturer in Mathematics, University of Bath (1972-1976)  
Science Research Council Research Fellow, School of Mathematics and Physics, University of East Anglia (1970-1972)

**Education:**

PhD in Applied Mathematics, University of Cambridge (1970)  
Distinction in Mathematical Tripos Pt. III, University of Cambridge (1967)  
BA with First Class Honours in Mathematics, University of Cambridge (1966)

**Recent Invited Lectures:**

Ten lectures on 'Nonlinear mechanics of soft solids, including biological tissues', 5th Winter School on Applied Mathematics, City University of Hong Kong, December 2011.

Seminar on 'Structure tensors in nonlinear elasticity: applications to cardiovascular biomechanics and initially-stressed solids', Universidad Politécnica de Madrid, Spain, May 2011.

Plenary Lecture on 'Structurally-based analysis of the mechanical properties of soft biological tissues', 82nd Annual Meeting of the Gesellschaft für Angewandte Mathematik und Mechanik (GAMM), Graz, Austria, April 2011.

Plenary Lecture on 'Constitutive modelling of arteries', Workshop on Nonlinear Mechanics, Xi'an Jiao Tong University, China, April 2011.

Seminar on 'The elasticity of fibrous soft tissues with applications to arteries and the myocardium', Tsinghua University, China, April 2011.

Seminar on 'Structure tensors and anisotropic invariants in nonlinear elasticity: applications to biomechanics and initially-stressed solids', Beijing University, China, March 2011.

Seminar on 'Structure tensors and invariants in nonlinear elasticity: applications to cardiovascular biomechanics and initially-stressed solids', National University of Ireland Galway, March 2011.

Seminar on 'Biomechanics of soft biological tissue: fibrous structure and arterial walls', University of Ballarat, Australia, February 2011.

Seminar on 'Structure tensors and anisotropic invariants in nonlinear elasticity: applications to biomechanics, magnetoelasticity, and initially-stressed solids', University of Chile, Santiago, January 2011.

Twelve lectures on 'Nonlinear mechanical properties of materials: modelling and applications', Graz University of Technology, Austria, October/November 2010.

Prager Medal Lecture on 'Invariants in nonlinear elasticity with applications to biomechanics, magnetoelastic interactions and initially-stressed materials', 47th Annual Meeting of the Society of Engineering Science, Ames, Iowa, October 2010.

Plenary Lecture on 'Structure and mechanical properties of soft biological tissues', 37th Solid Mechanics Conference (SolMech 2010), Warsaw, Poland, September 2010.

**Books:**

Ogden, RW. & Steigmann, D. (eds) (2011). 'Mechanics and Electrodynamics of Magneto- and Electro-elastic Materials'. CISM International Centre for Mechanical Sciences - Courses and Lectures, vol. 527, Springer, Vienna, Austria.  
[Online] DOI: 10.1007/978-3-7091-0701-0

Holzappel, G. & Ogden, RW. (eds) (2009). 'Biomechanical Modelling at the Molecular, Cellular and Tissue Levels'. CISM Courses and Lectures, vol. 508, Springer, New York, NY, USA.  
[Online] DOI: 10.1007/978-3-211-95875-9

**Chapters in books:**

Ogden, RW. (2011). 'Magnetostatics: from Basic Principles to Nonlinear Interactions in Deformable Media'. in R Ogden & D Steigmann (eds), Mechanics and Electrodynamics of Magneto- and Electro-elastic Materials CISM International Centre for Mechanical Sciences - Courses and Lectures, vol. 527, Springer, Vienna, Austria, pp. 107-152.  
[Online] DOI: 10.1007/978-3-7091-0701-0\_3

Dorfmann, A. & Ogden, RW. (2011). 'Nonlinear electro- and magnetoelastic interactions'. in J Merodio & G Saccomandi (eds), Encyclopedia of Physical Sciences, Engineering and Technology Resources: Continuum Mechanics Encyclopedia of Life Support Systems (EOLSS), UNESCO-EOLSS, Oxford.

Ogden, RW. (2009). 'Anisotropy and nonlinear elasticity in arterial wall mechanics'. in GA Holzappel & RW Ogden (eds), Biomechanical Modelling at the Molecular, Cellular and Tissue Levels International Centre for Mechanical Sciences (CISM), Courses and Lectures, no. 508, Springer, New York, NY, USA, pp. 179-258.  
[Online] DOI: 10.1007/978-3-211-95875-9\_3

**Contributions to Journals:**

Many articles listed on the website:

<http://www.abdn.ac.uk/engineering/people/details.php?id=r.ogden>