Professor Pedro V. Marcal

See:
http://web.stanford.edu/group/composites/program/marcal.html
http://www.researchgate.net/profile/Pedro_Marcal
http://www.amazon.com/Pedro-V.-Marcal/e/B00JPI67KA
http://manufacturingscience.asmedigitalcollection.asme.org/mobile/solrsearchresults.aspx?q=P.%20V.%20Marcal

Biography:
Pedro V. Marcal received a Ph. D. in Applied Mechanics from Imperial College, Univ. London in 1964. He spent his early professional career teaching at Imperial College and Brown University He then founded the MARC corporation to develop the first commercial nonlinear General Purpose Finite Element Program of the same name that is still widely used in Industry and Academia to this day for analysis complex structures such as nuclear reactors, deep-sea submersibles, car crashes and manufacturing processes. Dr. Marcal is recognized as a pioneer in nonlinear finite element analysis. He is the author of over 80 scientific papers on large displacement, elastic-plastic finite element analysis, Low-cycle Fatigue, Fracture, Risk Analysis and Artificial Intelligence.

Dr. Marcal is active in ASME and was made a Fellow in 1975. He served as Chairman of the Pressure Vessel and Piping Division and was awarded the Pressure Vessel Medal, 1989 for research work in Nonlinear Finite Element Analysis. He is currently developing macro-mechanical methods for analyzing Fiber Reinforced Composites. He has helped organize many scientific meetings on Computational Structural Mechanics.

Since 2005, Dr. Marcal has been active in NLP. He has developed the Automatic Natural Language Abstracting and Processing (ANLAP) program and a Japanese-English translator (JEMAP) as well as a Chinese-English translator (CEMAP).

Selected Publications:
P.V. Marcal and W.R. Pilgrim, “A Stiffness Method for Elasto-Plastic Shells of Revolution”, J. Strain Anal., Vol. 1, 1966, pp. 339-350

R. Mallett and P. Marcal, “Finite element analysis of nonlinear structures”, ASCE Journal of the Structural Division, No. ST9, September 1968

P. V. Marcal, ."Large Deflection Analysis of Elastic-Plastic Shells of Revolution," Contract N00014-67-A-0191-0004, Technical Report No. 1, Brown University (Dec. 1968)

J.F. McNamara and P.V. Marcal, “Incremental stiffness method for finite element analysis of the nonlinear dynamic problem”, Proc. Int. Symposium on Numerical and Commputer Methods in Structural Mechanics, Urbana, Illinois, September 1971

G.A. Dupuis, H.D. Hibbitt, S.F. McNamara and P.V. Marcal (Division of Engineering, Brown University, Providence, R.I. 02912, U.S.A.), “Nonlinear material and geometric behavior of shell structures”, Computers & Structures, Vol. 1, Nos. 1-2, August 1971, pp. 223-239

Hugh D. Hibbitt and Pedro V. Marcal (Brown University, Providence, Rhode Island 02912, U.S.A.), “A numerical, thermo-mechanical model for the welding and subsequent loading of a fabricated structure”, Computers & Structures, Vol. 3, No. 5, September 1973, pp.1145-1174