Dr. Eric G. Carnoy, CEO of SAMTECH

See:
http://be.linkedin.com/pub/eric-carnoy/0/508/796

(from SAMTECH newsletter, 2006):

SAMTECH: 20 years of excellence and an unsurpassed reputation in virtual prototyping

All these developments were initiated by Professor Fraeijs de Veubeke and a young researcher, who would later become Professor Sander. Professor Sander created SAMTECH in 1986 in order to provide an industrial environment to first important customers.

20 years later..
In twenty years of existence, we took leadership of the European market to become a major actor in the field of FEA and CAE, mainly facing American competitors. We are very proud to explain our customers and partners that our main R&D site in Liège, which currently employs more than fifty people, is the heart of a 100% European Group.

We started with 9 people in 1986 and now we employ more than 210 people, - including 80% engineers - in 9 companies not only here in Liège, but also in France, in Germany, in Italy, in Spain and in the United Kingdom. In the last eighteen months, we created two new subsidiaries in Spain (Barcelona) and in the UK (Bristol). We extended the offices of SAMTECH Deutschland to Hamburg. To support this extension, we hired about 30 people in 2005 and the growth will continue this year. This explains that some of our subsidiaries moved their offices to larger ones. Currently, we are also starting the building extension of SAMTECH Headquarters offices.

Our subsidiaries are all located in the heart of large industrial poles and/or close to our strategic customers from the aerospace or from the automobile sector. But we also work in close collaboration with a network of technically advanced distributors in Eastern Europe, India, China, Japan, Korea, Malaysia, Singapore and North America.

All these subsidiaries and partnerships contribute to the worldwide communication of SAMTECH product portfolio and to propagate SAMTECH high-tech reputation at the international scale.
I will be pleased to welcome you in March 2007, for the 10th SAMTECH Users Conferences [to be held in Liege, Belgium in March 2007]. In the meantime, I want to tell you how pleased I am that our companies work in close collaboration on so exciting new projects.

I thank you for your confidence in SAMTECH and in our products! -Eric Carnoy

Some papers by Eric G. Carnoy:

E. Carnoy (Aerospace Laboratory, University of Liège, Rue du Val Benoit 75, 4000, Liège, Belgium), "Postbuckling analysis of elastic structures by the finite element method", Computer Methods in Applied Mechanics and Engineering, Vol. 23, No. 2, August 1980, pp. 143-174,
doi:10.1016/0045-7825(80)90091-2
ABSTRACT: An asymptotic method based on Koiter's elastic stability theory is presented for geometrically nonlinear structure analysis; these structures are subjected to a proportional applied load system. An approach that makes possible the choice of the modes which are necessary to obtain a good representation of the reduced energy is developed as an iterative process. The approach is transferred into the framework of the finite element method. Applied to the study of thin walled structures through some sample tests, the method gives, at low cost, numerical results which are in good agreement with the preceding studies.

E. Carnoy and G. Sander (Aerospace Laboratory, Liège University, B-4000 Liège, Belgium), "Computer Methods in Applied Mechanics and Engineering, Vol. 32, Nos. 1-3, September 1982, pp. 329-363,
doi:10.1016/0045-7825(82)90075-5
ABSTRACT: The complementary energy approach for stability analysis of elastic structures under conservative loading is based on Fraeijs de Veubeke's variational principle. The associate equations of neutral equilibrium and stability criterium are presented for arbitrarily large deformations and rotations. When specialized to the structural behavior of thin plates in moderate rotations this functional yields the von Karman equations. Efficient mixed flat shell finite elements are derived from this functional. If the fundamental path is moderately nonlinear, the buckling load and the initial postbuckling behavior can be obtained by an iterative process of Rayleigh-Ritz type, which is based on Koiter's asymptotic approach. Development of the iterative method within the complementary energy principle allows improvement of computational effectiveness and of the rate of convergence, as shown by means of numerical examples.

Eric G. Carnoy (1) and Thomas J.R. Hughes (2)
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"Finite element analysis of the secondary buckling of a flat plate under uniaxial compression", International Journal of Non-Linear Mechanics, Vol. 18, No. 2, 1983, pp. 167-175, doi:10.1016/0020-7462(83)90043-4
ABSTRACT: Uemura and Byon (Int. J. Non-Linear Mech. 13, 1–14, 1978) presented experimental results and a numerical analysis about the secondary buckling of clamped flat plates under uniaxial compression. However, their numerical analysis is based upon an inconsistent flat plate finite element and it does not take into account the important influence of antisymmetric imperfections. This paper presents and discusses F.E.M. results

obtained by two computer codes using very different approaches, and compares these results with the experimental ones.

Thomas J. R. Hughes and Eric Carnoy (Division of Applied Mechanics, Durand Building, Stanford University, Stanford, CA 94305, U.S.A.), “Nonlinear finite element shell formulation accounting for large membrane strains”, Computer Methods in Applied Mechanics and Engineering, Vol. 39, No. 1, July 1983, pp. 69-82, doi:10.1016/0045-7825(83)90074-9
ABSTRACT: A previously developed nonlinear finite element shell formulation is generalized to accomodate large membrane strains. The formulation is demonstrated on the bending and inflation of a circular plate and the axisymmetric stretching of an annular plate. Both problems are modeled with a Mooney-Rivlin material and involve large membrane strains.

Eric.G. Carnoy and Guy Panosyan (NOVATOME, La Boursidière-RN 186, F 92357 Le Plessis Le Plessis Robinson Cedex, France), “Approximation of the plastic buckling load as the solution of an eigenvalue problem”, Nuclear Engineering and Design, Vol. 78, No. 3, April 1984, pp. 347-353, doi:10.1016/0029-5493(84)90198-5
ABSTRACT: Plastic buckling analysis of thin shell structures is generally performed by employing a Newton's type method within an incremental approach. This process becomes more efficient if a good estimate of the critical buckling load is available. This one can be obtained as the solution of an eigenvalue problem that generalizes the elastic bifurcation analysis. The stability matrix of the eigenvalue problem involves an additional term with respect to the elastic bifurcation problem; that is the material stiffness matrix that accounts for the change of the tangent modulus along the fundamental path. The proposed approach is applied to the elastoplastic buckling of spherical caps under pressure.