

CV of Gérard A.MAUGIN, Ph.D., D.Sc., Dr h.c.

1. Biodata :

Born December 02, 1944 in Angers, West of France; French citizen by birth
Married to Eleni, Princeton, USA, December 1978.

2. Higher Education

- **Dipl. Mechanical Engineer** : ENSAM, Paris, France, June 1966
- **Dipl. Aeronautical Engineer** : School of Aeronautics, "Sup Aéro", Paris, June 1968
- **Diplôme d'Etudes Approfondies de Mathématiques** (DEA, Theoretical Fluid Mechanics), Université de Paris-6, June 1968
- **Master of Arts**, Oct.1969, Princeton University, USA,
- **Ph.D.**, April 1971, Princeton University, USA, Aerospace and Mechanical Sciences
- **Doctorat d'Etat ès Sciences Mathématiques**, May 1975, **Université Pierre et Marie Curie**, Paris, France

3. Scientific Distinctions :

- **International NASA Fellow (USA)** : 1968-1970 [fifty such fellowships given throughout the World]
- **Medal of CNRS** for Physical Sciences in Engineering, Paris, 1977
- **Prize of Mechanics of the French Academy of Sciences**, Paris, 1982
- **Fellow of the Wissenschaftskolleg zu Berlin**, Berlin, Germany : Academic year 1991-2 (German version of the Institute for Advanced Studies of Princeton ; no duties)
- **Corresponding Member of the Academy of Arts and Letters of Messina, Italy** (1993)
- **Foreign Member of the Polish Academy of Sciences (P.A.N)** : elected May 1994
- **Honorary Title: "Professor honoris causa "**, Lomonosov State University of **Moscow, Russia** (2000)
- **Honorary Title: "Dr honoris causa"**, T.U.**Darmstadt , Germany** (2001)
- **Max-Planck Prize** (*awarded by the Max-Planck Society and the Humboldt Foundation, Germany*)(2001).
- **Foreign Member of the Estonian Academy of Sciences**: elected December 2002
- **SES "Eringen" Medal** (*awarded by The Society of Engineering Science, USA*) (2003)
- **Springer Distinguished Visiting professor** at the University of California, Berkeley, USA, 2003-2004.
- **Honorary Member "Yugoslav Society of Mechanics"**, Belgrade, Serbia. (2005)

4. Scientific Career and positions :

Summer 1966 : **Research Engineer** in Ballistic Missiles (French Ministry of National Defense)

Sept.66-June 68 : **Fellowship, Ministry of National Defense**, France

Oct.68-Sept. 70 : **International NASA Fellowship**, at Princeton, USA

Oct.70-April.71 : **Research Assistant on NSF Funds**, Princeton University, USA

April 71-Sept.71 : **Research Associate on NSF funds**, Princeton University, USA

Oct.71-Sept.72 : **Officer in the French Air Force** (then in the Reserve)

Oct.1972 : Admitted to the *Centre National de la Recherche Scientifique* after national competition. At CNRS since that time with the successive positions of « Attaché », « Chargé » « Maître » and « Directeur de Recherche », presently "de Classe Exceptionnelle" (Final position with rank of Full professor in Oct. 1979) while teaching graduate courses at the Université Pierre et Marie Curie (UPMC). Civil servant since 1984. "Classe Exceptionnelle" corresponds to the highest position in the French Civil Service.

1985 : Head of the research team on *Continuum mechanics* since 1985 at the *Laboratoire de Mécanique Théorique*, UPMC (now called « *Laboratoire de Modélisation en Mécanique*)

1998 : Elected and nominated (by the two sponsoring organizations : UPMC and CNRS) Head of the *Laboratoire de Modélisation en Mécanique (LMM)*. The *LMM* has about eighty members of which 22 full professors.

Special position : During the year 1986 was *Attaché for International Affairs* (Field of Engineering Sciences) at the Central Administration of CNRS, Paris. (in addition to normal duties).

Visiting Professorships and Research Associateships after 1972 : Princeton University, USA : Whole academic year 1975-76; 5 months in 1978 ; Polish Academy of Sciences, I.P.P.T., Warsaw, Poland : six weeks in 1975; Belgrade University, Mechanics, Yugoslavia : 6 weeks in 1977; Bosphorus University (Bogazici Universitesi), Mathematics, Istanbul, Turkey : 2 months in April-May 1980; University of Genoa (Università di Genova), Mathematics, Italy : Nov.1994 (visiting Professor of the Italian Research Council – CNR, mathematical physics, one month); Royal Institute of Technology (KTH) , Mechanics, Stockholm,

Sweden : one month, Dec .1984; **Nottingham University, Dept of Theoretical Mechanics, UK** : six weeks , June-August 1985 (Fellowship of the Royal Society); **Technical University of Berlin (T.U.Berlin), Inst.of Theoretical Physics, Germany** : one week, Nov.1987;**University of Pisa (Università di Pisa), Dept of Applied Math., Italy** : one month , Oct-Nov.1990, one month April 1993, one month April 1996, one month 2000 (each time Visiting Professor of the Italian National Research Council, CNR); **Lomonosov University (Moscow State University, Chair of Plasticity Prof.Ilyushin), Russia** : 2 weeks , May 1991; **Academy of Messina (Accad. Pelor.Pericol.di Messina), Italy** : 2 weeks April 1992, 2 weeks April 1994, 2 weeks Nov. 1999; **University of Calgary, Mechanical Engineering, Alberta, Canada** : Aug.-Sept.1993 (Special University grant for VIPs); **Group of Mathematical Physics of C.N.R., Ravello, Italy** : 2 weeks, Sept.1994; **University of Minnesota, Institute of Mathematics and Applications, USA** : one month, Nov .1995; **Lectures at the International Center of Mechanical Sciences (CISM), Udine, Italy** : 1977, 1992, 1993, 2000 (and coordinator), 2004; **University of Tel-Aviv, Dept of Mechanics of Solids and Structures, Israel** : 2 weeks, Nov.1994; **University of Rome-I (Università di Roma-I « La Sapienza »), Civil Engineering, Italy** : one month April-May 1997 (Visiting Professor of the Italian Research Council, CNR).; **Kyoto University « Innovative Science Visiting Chair »**, **Dept of Energy Conversion, Kyoto, Japan** : Invited professor of the Japanese Ministry of Higher Education, six months, Oct.97-March 98. **Darmstadt Technical Univ., Germany**: 2 weeks, April 2001; **University of California, Berkeley, Mechanical Engineering and Bio-engineering**, one month 2004-2005. **Has delivered about 150 seminars all over the World and contributed about 180 contributions or invited lectures at international conferences since 1973.**

5. Memberships in Scientific Societies :

Society of Natural Philosophy (SNP), USA; Society of Engineering Science, (SES), USA; Society for Industrial and Applied Mathematics (SIAM), USA; American Physical Society (APS), USA; American Mathematical Society (AMS), USA; Acoustical Society of America (ASA), USA; Gesellschaft für angewandte Math.und Mech. (GAMM), Germany; International Society for the Interaction of Mathematics and Mechanics (ISIMM) : Member of the Executive Committee 1986-1990, 1997-2001; Société Française d'Acoustique (SFA), France; Association Française de Mécanique (AFM), France; EUROMECH Society (European Society of Mechanics)

6. Memberships in Editorial Boards of Scientific journals :

International Journal of Engineering Science (IJES) , Pergamon Press, USA, from 1976 to Dec.1995.; *WAVE MOTION*, North-Holland, USA, since 1986; *Journal of Technical Physics* , Polish Academy of Science; *International Journal of Applied Electromagnetics and Mechanics* (IJAEM) ; one of its founders in 1990 ; presently **Regional Editor** (Europe, USA); *Applied Mechanics Reviews* (A.S.M.E., USA) : **Associate Editor** from 1985 to 2003; *Journal of Non-equilibrium Thermodynamics* (JNET), de Gruyter, Germany, Berlin; Egyptian Journal of Mathematics, Cairo, Egypt; *Archives of Applied Mechanics* (Formerly *Ingenieur-Archiv*), Springer-Verlag, Germany; *Archives of Mechanics* (Polish Academy of Science, Warszawa); *Journal of Thermal Stresses* (USA); *ARI*, Springer-Verlag, Berlin, **Associate Editor** since its creation 1997; *Proceedings of the Estonian Academy of Science* , Tallinn, Estonia since 1997; *Mechanics Research Communications* (International, Pergamon; **One of the three Regional Editors**, since July 1st 1999); *Theoretical and Applied Mechanics*, Belgrade, Yugoslavia; *Low Temperature Physics*, Kharkov, Ukraine; *Revue de Mécanique Appliquée et Théorique* (Morocco); *Multidiscipline Modeling of Materials and Structures* (VSP, Leiden).

Consultant at various periods : US Army Research (Fort Monmouth, NJ, USA); US Army Research (Research Triangle, Durham, NC, USA); O.N.R., Washington, USA; Ministry of National Defense, France; Valeo, France.

7. Number of Ph.D or D.Sc. students supervised since 1975 : 36

8. Graduate courses delivered at the Université Pierre et Marie Curie (UPMC)

(since 1983, depending on the year): Continuum Mechanics of Electromagnetic Solids; Nonlinear Electromechanical Couplings; Introduction to Wave Propagation in Solids; Thermomechanics of Plasticity and Fracture; Introduction to Nonlinear Phenomena in Mechanics; Elastoplasticity; Theory of Material Inhomogeneities in Solids; Advanced Phenomenology in Materials Mechanics

Other courses delivered at: CISM , Italy, Univ.Genova, Pisa, Stockholm, Nottingham; Ravello, Italy; Kyoto, Montpellier2

9. Publications:

Scientific Books (author): 9 (Springer, CUP, OUP, World Scientific, Chapman, Elsevier)

Scientific Books (edited): 16

Invited long contributions in volumes: 8

Papers in Scientific journals (refereed): circa 300 (Theoretical continuum mechanics; applied mathematics)

Papers (not abstracts) in published proceeding of conferences : circa 180

10. Fields of research

Relativistic continuum mechanics (1968-1982), micromagnetism (1969-1985), Electrodynamics of complex continua, geometry and generalized continuum mechanics, lattice dynamics and other discrete representations, surface waves on solids, thermomechanics with internal variables of state, finite-strain elastoplasticity, nonlinear waves of different types (shocks, solitons, etc) in complex systems, configurational forces and materials mechanics of materials, biomechanical applications (theory of growth of tissues).