



Curriculum vitae

- Personal data:** born March 04, 1941, Wels, Austria; married; 1 son
- Education:** 1959-65 University of Rostock, Diploma in „Applied Mechanics“
1965-68 University of Rostock, Institute of Mechanics, PhD Student
1968 Dr.-Ing. degree in Mechanics
- Positions:** 1968-71 University of Rostock, Head assistant in Dept. of Solid Mechanics
1971-76 University of Stuttgart, Research associate at the Institute of Mechanics (Civil Engineering)
1974 Habilitation, so-called Privatdozent
1976-80 Professor (C3, equivalent to Assoc. Prof.) TH Darmstadt, Institute of Mechanics
1980- Professor (C4, equivalent to Full Prof.) TU Darmstadt, Institute of Mechanics later Division of Solid Mechanics
- Research:** Structural Mechanics, Vibrations, Wave Propagation, Fracture and Damage Mechanics, Micromechanics
- Teaching:** Courses in Statics, Dynamics, Strength of Materials, Theory of Elasticity, Theory of Plasticity und Viscoelasticity, Vibrations, Fracture Mechanics, Stability, Acoustics, Micromechanics etc.
- Publications:** More than 250 papers (most of them in international Journals with reference system)
14 textbooks ('Statics', 'Dynamics', 'Strength of Materials', 'Advanced Mechanics', 'Exercises in Engineering Mechanics', 'Fracture Mechanics and Micromechanics', 'Mechanics of Elastic Bodies and Structures'),
1 Monography ('Fracture Dynamics'), 1 Proceedings
12 Book contributions
- Misc.:** Department Head, 1979-80, 1987-88, 1997-98, 2002-04
Director of the Institute of Mechanics, 1980--82, 1988-90, 1996-98
Member of the Senate of the TUD
Member of the editorial boards of 3 international journals
Reviewer for various journals (e.g. Int.J.Solides and Structures, Int.J. of Fracture, Wave Motion, Engn. Fracture Mech., Europ.J. of Mech., etc.)
Elected Head Reviewer of the German Science Foundation (DFG) for two 4-years periods
Doctoral students supervision: Dr.-Ing./PhD finished 36
Reviewer in Habilitation procedures: 12
1997 v. Humboldt Research Award
2004 Member of the Polish Academy of Sciences



Publication list

Journals & Proceedings

- [1] W.. Biermann und D. Gross, *Die Berechnung von Eigenfrequenzen vorgegebener Ordnung ohne Orthogonalisierung (Calculation of eigenfrequencies with predetermined order avoiding orthogonalization)*, Schiffbau Forschung, **4** (1965), 282-288
- [2] B. Scheutzel und D. Gross, *Formzahlen von Kreuzknoten unter Zug und Druck (Stress concentration factors of cross joints)*, Konstruktion, **18** (1966), 284-287
- [3] Gross, *Timoshenko-Theorie und Elastodynamik (Timoshenko theory and elastodynamics)*, Schiffbau Forschung, **8** (1969), 251-272
- [4] D. Gross, *Fortpflanzung von Transversalwellen in scheibenartigen orthotropen Balken (Propagation of transversal waves in orthotropic high beams)*, Zeitschr. Angew. Math. Mech., **51** (1971), 321-323
- [5] D. Gross, *Zwangsschwingungen von Rechteckplatten mit anisotropem, nichtlinearem Materialgesetz (Forced vibrations in rectangular plates with anisotropic, nonlinear material behavior)*, Maschinenbautechnik, **21** (1972), 213-215
- [6] D. Gross, *Dynamische Spannungskonzentration am zylindrischen Einschluss bei Belastung durch kreisförmige SH-Wellen (Dynamic stress concentration at a cylindrical inclusion loaded by circular SH waves)*, in „Beiträge zur Mechanik“: Festschrift für Prof. Dr. U. Wegner, Herausgegeben vom Institut für Mechanik (Bauwesen) der Universität Stuttgart, Stuttgart 1972, 189-208
- [7] D. Gross, *Dynamische Spannungskonzentration am elliptischen Loch bei Beanspruchung durch ebene SH-Wellen (Dynamic stress concentration at an elliptical hole, loaded by plane SH waves)*, Acta Mechanica, **16** (1973), 241-254
- [8] D. Gross, *Über den Einfluss der Mikrostruktur auf das Verhalten des instationären Risses (On the influence of microstructure on the behavior of an instationary crack)*, 6. Sitzung des Arbeitskreises Bruchvorgänge (Proceedings), DVM, Berlin 1975
- [9] D. Gross, *Special Theoretical Aspects of Dynamic Fracturing*, Advanced Seminar on Fracture Mechanics, 20.-24th October 1975, Ispra, Italy
- [10] K.-H. Krüger und D. Gross, *Ein Kranz von Rissen (An annulus of cracks)*, 9. Sitzung des Arbeitskreises Bruchvorgänge (Proceedings), DVM, Berlin 1977, 15-22
- [11] Th. Müller und D. Gross, *Experimentelle Untersuchung der Wegunabhängigkeit des J-Integrals bei großen plastischen Zonen (Experimental investigation of the path independence of the J-integral in large plastic zones)*, 11. Sitzung des Arbeitskreises Bruchvorgänge (Proceedings), DVM Berlin 1979, 177-185
- [12] T. Peuser und D. Gross, *Spannungsintensitätsfaktoren ebener dynamischer Probleme (Stress intensity factors of plane dynamic problems)*, 11. Sitzung des Arbeitskreises Bruchvorgänge (Proceedings), DVM Berlin 1979, 131-140
- [13] D. Gross, *Einige allgemeine Erhaltungssätze vom J-Integral-Typ (General conservation laws of the J-integral type)*, Zeitschr. Angew. Math. Mech., **60** (1980), T112-T113
- [14] Th. Müller und D. Gross, *Experimental investigations of the path independence of the J-Integral for large plastic zones*, in „Fracture and Fatigue“, ed. J.C. Radon, 177-184, Pergamon Press 1980
- [15] T. Peuser und D. Gross, *Stress intensity factors for plane dynamic problems*, in „Fracture and Fatigue“, ed. J.C. Radon, 461-473, Pergamon Press 1980
- [16] D. Gross, *Large Plastic Deformations in the Surrounding of a Crack*, Boletín de la Acad. Nacion. de Sci., Cordoba, Argentina, Tomo **54** (1980), 37-49
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