



Contents

7	Preface	55	1.9	Approximate time-domain solution for finite-amplitude spherical waves in an absorbing medium J. C. Lockwood	102	1.17	On resonant interaction of atmospheric waves C. Jurén and L. Stenflo	
Session 1 Nonlinear acoustics: general and air acoustics								
9	1.1	Nonlinear generation of secondary waves in fluids (invited paper) J. E. Ffowcs Williams	59	1.10	Finite-amplitude wave propagation in fluid-filled tubes (invited paper) L. Bjørnø	103	1.18	Nonlinear effects on propagation of capillary waves of finite amplitude V. A. Krasilnikov, V. I. Pavlov, V. P. Voronin and L. K. Zaremba
19	1.2	Propagation of finite-amplitude sound waves of arbitrary waveforms in a non-dissipative medium B. H. K. Lee and D. J. Jones	69	1.11	Nonlinear acoustic propagation in rectangular ducts A. H. Nayfeh and M.-S. Tsai	107	1.19	Radiation forces in nonlinear acoustics M. J. M. Jessel
24	1.3	Propagation of finite-amplitude noise F. M. Pestorius and D. T. Blackstock	75	1.12	Investigations on resonant acoustic waves in open pipes L. van Wijngaarden and J. W. Wormgoor	111	1.20	Scattering of sound by sound with applications (invited paper) P. J. Westervelt
30	1.4	Propagation of finite-amplitude sound through aerosols G. A. Davidson and D. S. Scott	81	1.13	Attenuation characteristics of nonlinear pressure waves propagating in pipes C. C. Shih	119	1.21	A survey of several nonlinear acoustic experiments on travelling wave fields T. G. Muir
37	1.6	Mass transport sustained by oscillations of finite amplitude in a stratified fluid J. N. Tjøtta and S. Tjøtta	88	1.14	On calculation of reflection coefficient at a boundary by means of the Fourier analysis of N-waves A. Nakamura, A. Yoshikawa, T. Nakamura and R. Takeuchi	126	1.22	Raman type stimulated acoustical scattering R. V. Khokhlov and N. I. Pushkina
44	1.7	On some observations on standing acoustical waves in a medium with a density gradient H. Hobæk	92	1.15	Problems of the theory of nonlinear acoustics (invited paper) O. V. Rudenko, S. I. Soluyan and R. V. Khokhlov	130	1.24	On waveforms and sound production in acoustic agglomeration of aerosols D. S. Scott, D. F. Rennick and A. J. Last
49	1.8	Finite-amplitude standing waves in fluid-filled cavities A. B. Coppens and J. V. Sanders	99	1.16	A new mechanism for the propagation of infrasonic waves at long distances in the atmosphere C. Berthet and Y. Rocard			Session 2 Nonlinear acoustics: underwater applications
						134	2.2	Asymptotic descriptions in nonlinear acoustics D. F. Parker

140	2.3	A parameter representation of the parametric acoustic array M. Vestrheim	184	2.12	The detection of a low-frequency plane wave with a parametric receiving array J. H. Truchard	240	3.7	The dynamics of cavitation bubble fields studied by double-pulse holography K. Hinsch, F. Bader and W. Lauterborn
145	2.4	Wideband response of the parametric acoustic array K. G. Foote	190	2.13	Parametric detection of low-frequency waves in the near field of a directional pump source P. H. Rogers, A. L. van Buren, A. O. Williams Jr and J. M. Barber	245	3.8	Cavitation in biological systems (invited paper) W. L. Nyborg
151	2.5	An experimental study of the parametric end-fire array in a random medium B. V. Smith, W. Weston-Bartholomew and N. Nakli			Session 3 Cavitation: general and basic aspects	252	3.9	The effects of acoustic forces on small particles in suspension R. K. Gould and W. T. Coakley
156	2.6	Beam patterns and directivity indices of parametric acoustic arrays D. R. Childs	195	3.1	General and basic aspects of cavitation (introductory paper) W. Lauterborn	258	3.10	Superheat in flowing sodium F. G. Hammitt
160	2.7	Approximate methods for predicting the performance of parametric sources at high acoustic Reynolds numbers F. H. Fenlon	203	3.2	Bubble dynamics and cavitation erosion (invited paper) M. S. Plesset	263	3.11	Bubble resonance effects in incipient cavitation thresholds M. Ceschia, G. Iernetti and R. Nabergoj
168	2.8	Finite-amplitude losses in the field of a real transducer H. M. Merklinger, H. O. Berkay and M. H. Safar	210	3.3	Shock waves generated by imploding cavitation bubbles, and their influence on materials F. Erdmann-Jesnitzer and H. Louis	268	3.12	Examination of viscosity influence on bubble growth B. Persson
174	2.9	Propagation of acoustic waves of finite amplitude in water containing air bubbles M. H. Safar	220	3.4	Variational methods and dynamics on non-spherical bubbles and liquid drops D. Y. Hsieh	272	3.13	Nonlinear acoustic response of a spherical bubble A. H. Nayfeh and W. S. Saric
180	2.10	Application of the parametric source to bottom and sub-bottom profiling W. L. Konrad	234	3.5	Experimental results on the behaviour of a translating gas bubble in water due to a pressure step P. T. Smulders and H. J. W. van Leeuwen	277	3.14	On the influence of the boundary layer on the structure of cavitation bubbles and the noise spectra resulting from their collapse with special reference to hydrodynamic cavitation on aerofoils K. K. Simhan
				3.6	Interfacial distortions of a pulsating gas bubble D. L. Storm			