

Keywords *boundary element method, composite materials, anisotropy, nonlinearity, boundary integral equation, fundamental solution, singular integral*

非线性科学未来10年展望国际学术会议

(1990年5月21—25日, 美国 Los Alamos)

这次会议 (Nonlinear Science: The Next Decade) 也是美国 Los Alamos 国家实验室的非线性研究中心 (Center for Nonlinear Studies) 成立后的第 10 次年会。与会代表有美国、苏联、法国、日本、中国等国的数十人。大会报告 31 篇反映了当代非线性科学研究的重要领域和问题。另有张贴论文数十篇。会将出版论文集。现将大会报告作者及题目列出于下。

- 1 Mitchell Feigenbaum (Rockefeller) : Scaling function theory
- 2 Guenter Ahlers (UCSB) : Experiments with pattern-forming nonequilibrium systems
- 3 Alwyn Scott (Univ. of Arizona) : Davydov's soliton revisited
- 4 郝柏林 (中国科学院理论物理研究所) : Symbolic dynamics and characterization of complexity
- 5 Ioannis Kevrekidis (Princeton) : Low-dimensional dynamics. Approximate inertial manifolds and bifurcation calculations
- 6 Steven Smale (UCB) : A dynamics retrospective: Great problems, efforts that failed
- 7 Vladimir Zakharov (Landau Inst., USSR) : Integrable turbulence
- 8 Tito Arecchi (Ist. Nazionale di Ottica, Italy) : Spatio-temporal complexity in quantum optics
- 9 Jerry Gollub (Haverford College) : Nonlinear wave dynamics, transport and mixing
- 10 Robert Westervelt (Harvard) : Experiments on nonlinear dynamics in electronic materials
- 11 Predrag Cvitanovic (Niels Bohr Inst., Denmark) : Periodic orbits: The skeleton behind chaos
- 12 Dave Levermore (Univ. of Arizona) : Kinetic theory revisited
- 13 Jerry Marsden (UCB) : Discrete reduction bifurcation and symmetry
- 14 Steven Wiggins (Los Alamos/Caltech) : Transport in chaotic dynamical systems
- 15 Michael E. Fisher (Univ. of Maryland) : Multi-wall interactions and complex commensurate phase equilibria
- 16 Susan Coppersmith (AT & T Bell Labs.) : Nonlinear dynamics of sliding charge density waves
- 17 R. Griffiths (Carnegie-Mellon Univ.) : Analytical and numerical studies of Frenkel-Kontorova models
- 18 Miki Wadati (Univ. of Tokyo, Japan) : Soliton phenomena in unstable media
- 19 Steven Orszag (Princeton) : Random Rayleigh-Taylor instability
- 20 Katepalli R. Sreenivasan (Yale) : Fluid turbulence and nonlinear dynamics
- 21 Harvey Segur (Univ. of Colorado) : Who cares about integrability?
- 22 John Holland (Univ. of Michigan) : A "building block" approach to the study of adaptive nonlinear systems
- 23 Wim van Saarloos (AT & T Bell Labs.) : Pulses and fronts in the complex Ginzburg-Landau equation
- 24 Yves Pomeau (Lab. ENS, France) : Extended systems: The impact of nonlinear science
- 25 George Oster (UCB) : Cell motion and morphogenesis
- 26 Irving Epstein (Brandeis Univ.) : Nonlinear oscillations in chemical and biological systems
- 27 Yuri Kivshar (Inst. for Low Temperature Physics & Engineering, USSR) : Nonlinearity and disorder
- 28 Alfred Huebler (Univ. of Illinois) : Resonant stimulation and control of complex systems
- 29 Martin Casdagli (Los Alamos) : Nonlinear analysis of time series data: Towards an optimal approach
- 30 James Yorke (Univ. of Maryland) : Chaotic dynamics
- 31 Martin Kruskal (Rutgers) : Surreal asymptotics

100871 北京大学物理系 赵凯华供稿