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## IMA SUMMER PROGRAMS

- 1987 Robotics
- 1988 Signal Processing
- 1989 Robust Statistics and Diagnostics
- 1990 Radar and Sonar (June 18–29)  
New Directions in Time Series Analysis (July 2–27)
- 1991 Semiconductors
- 1992 Environmental Studies: Mathematical, Computational, and  
Statistical Analysis
- 1993 Modeling, Mesh Generation, and Adaptive Numerical Methods  
for Partial Differential Equations
- 1994 Molecular Biology
- 1995 Large Scale Optimizations with Applications to Inverse Problems,  
Optimal Control and Design, and Molecular and Structural  
Optimization
- 1996 Emerging Applications of Number Theory (July 15–26)  
Theory of Random Sets (August 22–24)
- 1997 Statistics in the Health Sciences
- 1998 Coding and Cryptography (July 6–18)  
Mathematical Modeling in Industry (July 22–31)
- 1999 Codes, Systems, and Graphical Models (August 2–13, 1999)
- 2000 Mathematical Modeling in Industry: A Workshop for Graduate  
Students (July 19–28)
- 2001 Geometric Methods in Inverse Problems and PDE Control  
(July 16–27)
- 2002 Special Functions in the Digital Age (July 22–August 2)

## IMA “HOT TOPICS” WORKSHOPS

- Challenges and Opportunities in Genomics: Production, Storage,  
Mining and Use, April 24–27, 1999
- Decision Making Under Uncertainty: Energy and Environmental  
Models, July 20–24, 1999
- Analysis and Modeling of Optical Devices, September 9–10, 1999
- Decision Making under Uncertainty: Assessment of the Reliability  
of Mathematical Models, September 16–17, 1999
- Scaling Phenomena in Communication Networks, October 22–24,  
1999
- Text Mining, April 17–18, 2000
- Mathematical Challenges in Global Positioning Systems (GPS),  
August 16–18, 2000
- Modeling and Analysis of Noise in Integrated Circuits and Systems,  
August 29–30, 2000
- Mathematics of the Internet: E-Auction and Markets, December  
3–5, 2000
- Analysis and Modeling of Industrial Jetting Processes, January  
10–13, 2001

- Wireless Networks, August 6–10 2001

**SPRINGER LECTURE NOTES FROM THE IMA:**

*The Mathematics and Physics of Disordered Media*

Editors: Barry Hughes and Barry Ninham  
(Lecture Notes in Math., Volume 1035, 1983)

*Orienting Polymers*

Editor: J.L. Ericksen  
(Lecture Notes in Math., Volume 1063, 1984)

*New Perspectives in Thermodynamics*

Editor: James Serrin  
(Springer-Verlag, 1986)

*Models of Economic Dynamics*

Editor: Hugo Sonnenschein  
(Lecture Notes in Econ., Volume 264, 1986)

## **The IMA Volumes in Mathematics and its Applications**

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### *Current Volumes:*

- 1     **Homogenization and Effective Moduli of Materials and Media**  
J. Ericksen, D. Kinderlehrer, R. Kohn, and J.-L. Lions (eds.)
- 2     **Oscillation Theory, Computation, and Methods of Compensated Compactness** C. Dafermos, J. Ericksen, D. Kinderlehrer, and M. Slemrod (eds.)
- 3     **Metastability and Incompletely Posed Problems**  
S. Antman, J. Ericksen, D. Kinderlehrer, and I. Muller (eds.)
- 4     **Dynamical Problems in Continuum Physics**  
J. Bona, C. Dafermos, J. Ericksen, and D. Kinderlehrer (eds.)
- 5     **Theory and Applications of Liquid Crystals**  
J. Ericksen and D. Kinderlehrer (eds.)
- 6     **Amorphous Polymers and Non-Newtonian Fluids**  
C. Dafermos, J. Ericksen, and D. Kinderlehrer (eds.)
- 7     **Random Media** G. Papanicolaou (ed.)
- 8     **Percolation Theory and Ergodic Theory of Infinite Particle Systems** H. Kesten (ed.)
- 9     **Hydrodynamic Behavior and Interacting Particle Systems**  
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- 10    **Stochastic Differential Systems, Stochastic Control Theory, and Applications** W. Fleming and P.-L. Lions (eds.)
- 11    **Numerical Simulation in Oil Recovery** M.F. Wheeler (ed.)
- 12    **Computational Fluid Dynamics and Reacting Gas Flows**  
B. Engquist, M. Luskin, and A. Majda (eds.)
- 13    **Numerical Algorithms for Parallel Computer Architectures**  
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- 15    **Mathematical Frontiers in Computational Chemical Physics**  
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D. Ray-Chaudhuri (ed.)
- 21    **Coding Theory and Design Theory Part II: Design Theory**  
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