

## CONTENTS

Foreword .....	ix
Preface .....	xi
Mathematical Problems in the Kinetic Theory of Polymeric Fluids .....	1
R. Bird	
Lagrangian Concepts for the Numerical Analysis of Viscoelastic Flow ....	21
B. Caswell	
Solutions with Shocks for Conservation Laws with Memory .....	33
C. Dafermos	
Hyperbolic Dynamics in the Flow of Elastic Liquids .....	57
D.D. Joseph	
Rubbery Liquids in Theory and Experiment .....	89
E.A. Kearsley	
Dynamical Behavior Under Random Perturbation of Materials with Selective Recall .....	123
M. Marcus and V.J. Mizel	
Development of Singularities in Nonlinear Viscoelasticity .....	139
J.A. Nohel and M.J. Renardy	
Macromolecules in Elongational Flow: Metastability and Hysteresis .....	153
Y. Rabin	
Propagation of Discontinuities in Linear Viscoelasticity .....	161
M.J. Renardy and W. Hrusa	
Strength and Entanglement Development at Amorphous Polymer Interfaces ...	169
R.P. Wool	
Author Index for Volumes 1 through 6 .....	189
Information about Other Volumes in this Program .....	197