Preface
Opening Remarks p. 1
Resolutions p. 6
Symposium/Workshop Activities p. 6
General Papers
NSF Programs in Computational and Structural Mechanics p. 10
Funding Programs of the Computational Mechanics by National Natural Science Foundation of China (NSFC) p. 27
Partial Differential Equations and Hamiltonian System p. 32
Generalized Optimal Active Control Algorithm of Seismic Structures and Related Soil-Structure Formulation p. 49
Failure Analysis and Finite Elements
Nonlinear Finite Element Algorithms for Massively Parallel SIMD Computers p. 63
Spline Finite Element Method - Recent Developments p. 77
The Ritz-Lanczos Algorithm in Structural Dynamic Analysis p. 91
Rigid Body Criteria in Nonlinear Element Formulation p. 101
Shells and Walls
Shells: Mechanics and Approximation - Linear and Nonlinear Aspects p. 114
Statics, Dynamics and Stability of Shell Structures p. 128
Research on Unreinforced Hollow Clay Tile Walls and Developments of Computational Mechanics p. 140
The Analysis of the Environments and Structures Interaction - Soil-Plate and Shell Interaction p. 154
Structural Control
Active Structural Control for Natural Hazard Mitigation p. 168
Study on Structural Control p. 179
Control of Coupled Bending and Torsional Vibration and Motion of Beams with Shear Effect p. 193
Effects of Flexible Foundation on the Responses of Active Controlled Structures p. 205
Active Control of Base Isolated Structures p. 219
Computational Strategies for Buildings
Substructured Computer-Actuator Hybrid Analysis for Inelastic Earthquake Response of Structures p. 232
Recent Development of 3-Dimensional Analysis of Tall Building Structures by Continuum Method p. 246
Nonlinear Analysis
Nonlinear Modelling and Analysis of Reinforced Concrete Frame Structures p. 260
Mechanical Properties of Plastic Concrete and Nonlinear Structural Analyses of Plastic Concrete Cut-off Wall p. 273
Analyses of Tall Building Structures by the Method of Analytic ODE Solver p. 286
Nonlinear and Postbuckling Analysis of Elastic Frames p. 300
Structural Optimization
Optimum Structural Design under Uncertainties and Imprecisions p. 314
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimum Earthquake Resistant Design of Plane Frame Structures with Elasto-Plastic Beam</td>
<td>326</td>
</tr>
<tr>
<td>New System of Earthquake Resistant Structures in Seismic Zone</td>
<td>343</td>
</tr>
<tr>
<td>Observational Construction Control System for Soil Structures by Computer Network</td>
<td>357</td>
</tr>
<tr>
<td>Minimum Search for Lagrange Multiplier Method in Constrained Optimization Problems</td>
<td>371</td>
</tr>
<tr>
<td>Structural Reliability</td>
<td></td>
</tr>
<tr>
<td>Computational Damage Analysis and Reliability Assessment</td>
<td>381</td>
</tr>
<tr>
<td>Dynamic Behavior of Bridges under Random Loading and Dynamic Reliability Problem</td>
<td>398</td>
</tr>
<tr>
<td>Fuzzy Random Analysis and Design of Engineering Structures</td>
<td>412</td>
</tr>
<tr>
<td>Supercomputer, CAD and Expert System</td>
<td></td>
</tr>
<tr>
<td>Supercomputer Applications</td>
<td>423</td>
</tr>
<tr>
<td>Some Aspects of R.C. Structure CAD System</td>
<td>439</td>
</tr>
<tr>
<td>Fuzzy Reasoning and Machine Learning of Expert System for Structural Design</td>
<td>450</td>
</tr>
<tr>
<td>Index of Contributors</td>
<td>465</td>
</tr>
</tbody>
</table>

Table of Contents provided by Blackwell's Book Services and R.R. Bowker. Used with permission.