1 Editor's Note / Sashi K. Kunnath

TECHNICAL PAPERS

METAL STRUCTURES
3 Further Insights into Postbuckling of Web Panels. I: Review of Flange Anchoring Mechanism / Sung C. Lee, Doo S. Lee, Chai H. Yoo
11 Further Insights into Postbuckling of Web Panels. II: Experiments and Verification of New Theory / Sung C. Lee, Doo S. Lee, Chan S. Park, Chai H. Yoo
19 Experimental Investigation of Inelastic Cyclic Buckling and Fracture of Steel Braces / B. V. Fell, A. M. Kanvinde, G. G. Deierlein, A. T. Myers
33 Seismic Column Demands in Ductile Braced Frames / Paul W. Richards
42 Modeling of Residual Stresses in Structural Stainless Steel Sections / L. Gardner, R. B. Cruise

STRUCTURAL IDENTIFICATION
54 System Identification of Alfred Zampa Memorial Bridge Using Dynamic Field Test Data / Xianfei He, Babak Moaveni, Joel P. Conte, Ahmed Elgamal, Sami F. Masri
67 Assessment of Repairs and Strengthening of a Historic Masonry Pagoda Using a Vibration-Based-Method / S. W. Li, J. W. Wei, T. Y. Li, Q. M. Li, A. J. Bell

REINFORCED CONCRETE STRUCTURES
78 Influence of Longitudinal Reinforcement on One-Way Shear in Slabs and Wide Beams / Adam S. Lubell, Evan C. Bentz, Michael P. Collins

WOOD STRUCTURES
88 Tests of Adhesives to Augment Nails in Wind Uplift Resistance of Roofs / Matthew A. Turner, Raymond H. Plaut, David A. Dillard, Joseph R. Loferski, Rick Caudill

TECHNICAL NOTES
SPECIAL DESIGN ISSUES
94 Counteracting Structural Loads: Treatment in ASCE Standard 7-05 / Bruce Ft. Ellingwood, Yue Li
nr 2

99 Editor's Note / Sashi K. Kunnath

TECHNICAL PAPERS
SEISMIC EFFECTS
101 Seismic History Analysis of Asymmetric Buildings with Soil-Structure Interaction / Jui-Liang Lin, Keh-Chyuan Tsai, Eduardo Miranda
113 Application of Energy Balance Concept in Seismic Evaluation of Structures / Sutat Leelataviwat, Winai Saewon, Subhash C. Goel
122 Prefabricated Steel Stair Performance under Combined Seismic and Gravity Loads / Christopher Higgins

REINFORCED CONCRETE STRUCTURES
130 Yield Penetration Hinge Rotation in Reinforced Concrete Beams / Matthew Hasket, Deric John Oehler, M. S. Mohamed, AH. Chengqing Wu
139 Hysteretic Model for Reinforced Concrete Columns Including the Effect of Shear and Axial Load Failure / Halil Sezen, Tanmoy Chowdhury
147 Nonlinear Modeling of Flat-Plate Systems / Thomas H.-K. Kang, John W. Wallace, Kenneth J. Elwood

WOOD STRUCTURES
159 Framework for Multihazard Risk Assessment and Mitigation for Wood-Frame Residential Construction / Yue Li, Bruce R. Ellingwood
169 Performance-Based Wind Engineering for Wood-Frame Buildings / John W. van tie Lindt, Thang N. Dao
178 Lateral Performance of Nonsymmetric Diagonal-Braced Wood Shear Walls / Minghao Li, Frank Lam

METAL STRUCTURES
187 Testing and Analysis of Steel Pipes under Bending, Tension, and Internal Pressure / Istemi F. Ozkan, Magdi Mohareb

ANALYSIS AND COMPUTATION
198 Finite-Strip Method for the Analysis of Cracked Plates with Application to Plate-Girder Bridges / Moe M. S. Cheung, Zhaobin Song

DISCUSSIONS AND CLOSURES
206 Discussion of "Structural Monitoring and Integrity Assessment of Medieval Towers" by Alberto Carpinteri and Giuseppe Lacidogna / Ahmet Turer
207 Closure / Alberto Carpinteri, Stefano Invernizzi, Giuseppe Lacidogna
TECHNICAL PAPERS

METAL STRUCTURES
211 Special Perforated Steel Plate Shear Walls with Reduced Beam Section Anchor Beams. I: Experimental Investigation / Darren Vian, Michel Bruneau, K. C. Tsai, Y.-C. Lin
221 Special Perforated Steel Plate Shear Walls with Reduced Beam Section Anchor Beams. II: Analysis and Design Recommendations / Darren Vian, Michel Bruneau, Ronny Purba
229 Direct Strength Design of Cold-Formed Purlins / Cao Hung Pham, Gregory J. Hancock

REINFORCED CONCRETE STRUCTURES
239 Single-Span Deep Beams Subjected to Unsymmetrical Loads / Ning Zhang, Kang-Hai Tan, Chee-Lai Leong
253 Unified Strength Model for Square and Circular Concrete Columns Confined by External Jacket / Yu-Fei Wu, Lei-Ming Wang

WOOD STRUCTURES
262 Seismic Fragility Analysis and Retrofit of Conventional Residential Wood-Frame Structures in the Central United States / Weichiang Pang, David V. Rosowsky, Bruce R. Ellingwood, Yue Wang
272 Fully Reversed Cyclic Loading of Shear Walls Fastened with Engineered Nails / Fernando S. Fonseca, Paul D. Lattin, Edward Sutt Jr.

DYNAMIC EFFECTS
282 Intrinsic Damping: Modeling Techniques for Engineering Systems / Judith Wang
292 Behavior of Reinforced and Posttensioned Concrete Members with a UHPFRC Overlay under Impact Loading / Katrin Habel, Paul Gauvreau

WIND EFFECTS
301 U.S. Hurricane Wind Speed Risk and Uncertainty / Peter J. Vickery, Dhiraj Wadhera, Lawrence A. Twisdale Jr., Francis M. Lavelle

TECHNICAL NOTES
321 Quantitative Comparison of Optimization Approaches for the Design of Supplemental Damping in Earthquake Engineering Practice Robert / Levy and Oren Lavan
326 Capacities of OSB-Sheathed Light-Frame Shear-Wall Panels with or without Perforations / G. Doudak, I. Smith

BOOK REVIEWS
330 Review of The History of the Theory of Structures—From Arch Analysis to Computational Mechanics by / Karl-Eugen Kurrer Sashi K. Kunnath
EDITOR'S NOTE
Sashi K. Kunnath

TECHNICAL PAPERS
REINFORCED CONCRETE STRUCTURES
335 Nonlinear Uniaxial Material Model for Reinforcing Steel Bars / Sashi K. Kunnath, YeongAe Heo, Jon F. Mohle
344 Anchorage of Longitudinal Column Reinforcement in Bridge Monolithic Connections / D. Timosidis, S. J. Pantazopoulos
356 Analytical Method for Failure of Anchor-Grout-Concrete Anchorage due to Concrete Cone Failure and Interfacial Debonding / Zhimin Wu, Shutong Yang, Yufei Wu, Xiaozhi Hu
366 Behavior of Reinforced Concrete Box Culverts under High Embankments / Mario Pimentel, Pedro Costa, Carlos Felix, Joaquim Figueiras
376 Experimental and Numerical Investigation of Corrosion-Induced Cover Cracking in Reinforced Concrete Structures / Dimitri V. Val, Leonid Chernin, Mark G. Stewart

SEISMIC EFFECTS
386 Analytical Response and Design of Buildings with Metallic Structural Fuses. I / Ramiro Vargas, Michel Bruneau
394 Experimental Response of Buildings Designed with Metallic Structural Fuses. II / Ramiro Vargas, Michel Bruneau
404 Impact of Code Requirements in the Central United States: Seismic Performance Assessment of a Reinforced Concrete Building / Erin Kueht, Mary Beth D. Hueste
414 Seismic Risk Assessment of Gravity Load Designed Reinforced Concrete Frames Subjected to Mid-America Ground Motions / Ozan Cem Celik, Bruce R. Ellingwood

WIND EFFECTS
437 Wind-Induced Cladding and Structural Loads on Low-Wood Building / Ioannis Zisis, Ted Stathopoulos

METAL AND COMPOSITE STRUCTURES
448 Flexural Test of a Composite Beam Using Asymmetric Steel Section with Web Openings / Young K. Ju, Sung-Chul Chun, Sang-Dae Kim
TECHNICAL PAPERS

SEISMIC EFFECTS

461 Design of Buckling-Restrained Braced Frames Using Nonlinear Time History Analysis and Optimization / Richard J. Balling, Lukas J. Balling, Paul W. Richards

469 Performance of a Damage-Protected Highway Bridge Pier Subjected to Bidirectional Earthquake Attack / K. Solberg, N. Mashiko, J. B. Mander, R. P. Dhakal

479 Experimental Study of a Self-Centering Beam-Column Connection with Bottom Flange Friction Device / Michael Wolski, James M. Rides, Richard Sause

489 Performance-Based Seismic Design of Steel MRFs with Elastomeric Dampers / Kyung-Sik Lee, James Rides, Richard Sause

REINFORCED CONCRETE STRUCTURES

499 Evaluation of Crack Spacing in Reinforced Concrete Shear Walls / T. C. Hutchinson, T. Wang

509 Bond Stress-Slip Model for Steel Bars in Unconfined or Steel, FRC, or FRP Confined Concrete under Cyclic Loading / M. H. Harajli

519 Performance of Steel Fibrous Reinforced Concrete Corbels Subjected to Vertical and Horizontal Loads / Giuseppe Campione

METAL AND COMPOSITE STRUCTURES

530 Inhibiting Steel Brace Buckling Using Carbon Fiber-Reinforced Polymers: Large-Scale Tests / Sherif EI-Tawil, Ekin Ekiz

539 Design of Steel Equal Angle Lintels / N. S. Trahair

546 Flexural Buckling of Elliptical Hollow Section Columns / T. M. Chan, L. Gardner

558 Design of Aluminum Alloy Flexural Members Using Direct Strength Method / Ji-Hua Zhu, Ben Young

STRUCTURAL SAFETY AND RELIABILITY

567 Predictive Models from Statistically Nonconforming Databases / William P. Fritz, Takeru Igusa, Nicholas P. Jones

576 Predictive Models for the Median and Variability of Building Period and Damping / William P. Fritz, Nicholas P. Jones, Takeru Igusa

587 Seismic Reliability Analysis of Diagonal-Braced and Structural-Panel-Sheathed Wood Shear Walls / Minghao Li, Frank Lam, Ricardo O. Foschi

STRUCTURAL IDENTIFICATION AND CONTROL

597 Strategic Network Utilization in a Wireless Structural Control System for Seismically Excited Structures / R. Andrew Swartz, Jerome P. Lynch
Editor's Note / Sashi K. Kunnath

FORUM
The Next Step for AF&PA/ASCE 16-95: Performance-Based Design of Wood Structures / John W. van de Lindt, Yue Li, William M. Bulleit, Rakesh Gupta, Paul I. Morris

TECHNICAL PAPERS
REINFORCED CONCRETE & MASONRY STRUCTURES
Bond Model of NSM-FRP Strips in the Context of the Shear Strengthening of RC Beams / Vincenzo Bianco, Joaquim A. O. Barros, Giorgio Monti
Strut-and-Tie Method for CFRP Strengthened Deep RC Members Sangdon Park / Riyad S. Aboutaha
Backbone Model for Confined Masonry Walls for Performance-Based Seismic Design / Zahra Riahi, Kenneth J. Elwood, Sergio M. Alcocer

WOOD STRUCTURES
Wood I-Joists with Excessive Web Openings: An Experimental and Analytical Investigation / Geoffrey C. Morrissey, David W. Dinehart, W. Gary Dunn
Strain Distribution in OSB and GWB in Wood-Frame Shear Walls / Arijit Sinha, Rakesh Gupta

ANALYSIS AND COMPUTATION
Meshfree Method for Inelastic Frame Analysis / Louie L Yaw, Sashi K. Kunnath, N. Sukumar
Comparison and Study of Different Progressive Collapse Simulation Techniques for RC Structures / Kfir Menchel, Thierry J. Massart, Yves Rammer, Philippe Bouillard

SEISMIC EFFECTS
Comparative Evaluation of Base-Isolated and Fixed-Base Buildings Using a Comprehensive Response Index / Prayag J. Sayani, Keri L. Ryan

SHOCK AND VIBRATORY EFFECTS
Blast Resistance Capacity of Reinforced Concrete Slabs / Pedro F. Silva, Binggeng Lu

WIND EFFECTS
Gust-Front Factor: New Framework for Wind Load Effects on Structures / Dae-Kun Kwon, Ahsan Kareem

STRUCTURAL MONITORING
Bridge System Performance Assessment from Structural Health Monitoring: A Case Study / Ming Liu, Dan M. Frangopol, Sunyong Kim

TECHNICAL NOTES
REINFORCED CONCRETE & MASONRY STRUCTURES
Stiffness Reduction Factor for Flat Slab Structures under Lateral Loads / Sang-Whan Han, Young-Mi Park, Seong-Hoon Kee
751 Editor's Note / Sashi K. Kunnath

TECHNICAL PAPERS

REINFORCED CONCRETE STRUCTURES
753 Simple Rational Model for Reinforced Concrete Subjected to Seismic Shear / Marc Gerin, Perry Adebar
762 Reconsideration of Seismic Performance and Design of Beam-Column Joints of Earthquake-Resistant Reinforced Concrete Frames / Hua Zhou
774 Effects of Axial Compression Load and Eccentricity on Seismic Behavior of Nonseismically Detailed Interior Beam-Wide Column Joints / Bing Li, Tso-Chien Pan, Cao Thanh Ngoc Tran

METAL STRUCTURES
785 Steel Plate Shear Walls with Various Infill Plate Designs / In-Rak Choi, Hong-Gun Park
797 Static Design Recommendations for Slotted End HSS Connections in Tension / Gilberto Martinez-Saucedo, Jeffrey A. Packer
806 Tests and Design of Aluminum Tubular Sections Subjected to Concentrated Bearing Load / Feng Zhou, Ben Young, Xiao-Ling Zhao

SHOCK AND VIBRATORY EFFECTS
818 Action of Individual Bouncing on Structures / Ernesto Duarte, Tianjian Ji

WIND EFFECTS
828 Low-Frequency Variations of Force Coefficients on Square Cylinders with Sharp and Rounded Corners / Andrea Mola, Giancarlo Bordonaro, Muhammad R. Hajj

SEISMIC EFFECTS
836 Seismic Assessment of Existing RC Frames: Probabilistic Approach / Gianvittoho Rizzano, Immacolata Tolone

STRUCTURAL CONTROL
853 Integrated Design of Controlled Linear Structural Systems / G. P. Cimellaro, T. T. Soong, A. M. Reinhorn

STRUCTURAL MONITORING AND SYSTEM IDENTIFICATION
863 Statistical Analysis of Vibration Modes of a Suspension Bridge Using Spatially Dense Wireless Sensor Network / Shamim N. Pakzad, Gregory L Fenves

TECHNICAL NOTES
873 Dynamics of a Class of Horizontal Setback Buildings with Flexible Floor Diaphragm / Dhiman Basu

DISCUSSIONS AND CLOSURES
878 Discussion of "Conceptual Seismic Design of Regular Frames Based on the Concept of Uniform Damage" by Kyungha Park and Ricardo A. Medina / John Harris
880 Closure / Kyungha Park, Ricardo A. Medina
TECHNICAL PAPERS
SAFETY AND RELIABILITY
887 Stochastic Assessment of Timing and Efficiency of Maintenance for Corroding RC Structures / J. A. Mullard, M. G. Stewart
896 Serviceability Reliability of Reinforced Concrete Beams with Corroded Reinforcement / Dimitri V. Val, Leonid Chernin

SEISMIC EFFECTS
906 New Lateral Force Distribution for Seismic Design of Structures / Iman Hajirasouliha, Hassan Moghaddam
916 Seismic Design of High-Rise Concrete Walls: Reverse Shear due to Diaphragms below Flexural Hinge / Babak Rajaee Pad, Perry Adebar
925 Effectiveness of Some Strengthening Options for Masonry-Infilled RC Frames with Open First Story / Hemant B. Kaushik, Durgesh C. Rai, Sudhir K. Jain

SHOCK AND VIBRATORY EFFECTS
938 Impact Response of Reinforced Concrete Beam and Its Analytical Evaluation Kazunori Fujikake, Bing Li, and Sam Soeun

METAL STRUCTURES
951 Strength of Screw Connections in Cold-Formed Steel Construction / Reynaud Serrette, Dean Peyton
959 Reversed Cyclic Performance of Shear Walls with Wood Panels Attached to Cold-Formed Steel with Pins / Reynaud Serrette, David P. Nolan

WOOD STRUCTURES
968 Development of Nailed Wood Joint Element in ABAQUS / Jian Xu, J. Daniel Dolan
977 Development of a Wood-Frame Shear Wall Model in ABAQUS / Jian Xu, J. Daniel Dolan

STRUCTURAL OPTIMIZATION
985 Stiffness Optimization for Wind-Induced Dynamic Serviceability Design of Tall Buildings / C. M. Chan, M. F. Huang, K. C. S. Kwok

TECHNICAL NOTES
998 Robustness to Uncertainty: An Alternative Perspective in Realizing Uncertainty in Modeling Deflection of Reinforced Concrete Structures / Jung J. Kim, Mahmoud Reda Taha
TECHNICAL PAPERS

REINFORCED CONCRETE STRUCTURES

1007 Experimental and Numerical Investigations on the Seismic Behavior of Lightly Reinforced Concrete Beam-Column Joints / Bing Li, Cao Thanh Ngoc Iran, Tso-Chien Pan

1019 Effects of Bottom Reinforcement on Hysteretic Behavior of Posttensioned Flat Plate Connections / Sang Whan Han, Seong-Hoon Kee, Young-Mi Park, Sang-Su Ha, John W. Wallace


1040 Macroscopic Elastic Constitutive Relationship of Cast-in-Place Hollow-Core Slabs / Jing-Zhong Xie

METAL STRUCTURES

1048 Performance of Steel-Concrete Composite Beams under Combined Bending and Torsion / Jianguo Nie, Liang Tang, C. S. Cai

1058 Lateral Buckling Strength of Simply Supported LiteSteel Beams Subject to Moment Gradient Effects / Cyrilus Winatama Kurniawan, Mahen Mahendran

SPECIAL DESIGN ISSUES

1068 Failure of Lightly Reinforced Concrete Floor Slabs with Planar Edge Restraints under Fire / E. Omer, B. A. Izzuddin, A. Y. Elghazouli

1081 Structural Fire Safety of Circular Concrete Railroad Tunnel Linings / A. Caner, A. Boncu

STRUCTURAL IDENTIFICATION

1093 Structural Damage Detection of Cable-Stayed Bridges Using Changes in Cable Forces and Model Updating / X. G. Hua, Y. Q. Ni, Z. Q. Chen, J. M. Ko

1107 Physical-Parameter Identification of Base-Isolated Buildings Using Backbone Curves / Ming-Chih Huang, Yen-Po Wang, Jer-Rong Chang, Yi-Hsuan Chen

ANALYSIS AND COMPUTATION

1115 Frame Element for Metallic Shear-Yielding Members under Cyclic Loading / Afsin Santas and Filip C. Filippou

SEISMIC EFFECTS

1124 Experimental Studies on Real-Time Testing of Structures with Elastomeric Dampers / Oya Mercan, James M. Rides

TECHNICAL NOTES

1134 Rational Fraction Polynomial Method and Random Decrement Technique for Force-Excited Acceleration Responses / Chiu Jen Ku, Yukio Tamura
DISCUSSIONS AND CLOSURES

1139 Discussion of "Estimating Fundamental Frequencies of Tall Buildings" by Clive L. Dym and Harry E. Williams / J. Dario Aristizabal-Ochoa

1140 Closure / Clive L. Dym, Harry E. Williams
1141 Editor's Note / Sashi K. Kunnath

TECHNICAL PAPERS

SEISMIC EFFECTS


1155 Probabilistic Assessment of Structural Damage due to Earthquakes for Buildings in Mid-America / Jong-Wha Bai, Mary Beth D. Hueste, Paolo Gardoni

1164 Cyclic Behavior of RC Columns Strengthened by FRP and Steel / Devices R. Realfonzo, A. Napoli

1177 Seismic Performance of Strengthened Reinforced Concrete Beam-Column Joints Using FRP Composites / Bing Li, H. Y. Grace Chua

ANALYSIS AND COMPUTATION

1191 Fiber Heat Transfer Element for Modeling the Thermal Response of Structures in Fire / A. E. Jeffers, E. D. Sotelino

1201 Three-Dimensional Analysis of Reinforced Concrete Beam-Column Structures in Fire / Zhaohui Huang, Ian W. Burgess, Roger J. Plank

1213 Nonlocal Damage Formulation for a Flexibility-Based Frame Element / Hamid R. Valipour, Stephen J. Foster

METAL AND COMPOSITE STRUCTURES

1222 Blast Resistance of Steel Plate Shear Walls Designed for Seismic Loading / Gordon P. Warn, Michel Bruneau

1231 Hysteretic Behavior and Strength Capacity of Shallowly Embedded Steel Column Bases / Yao Cui, Takuya Nagae, Masayoshi Nakashima

1239 Behavior of Double Skin Composite Wall Subjected to In-Plane Cyclic Loading / Tae-Sung Eom, Hong-Gun Park, Cheol-Ho Lee, Jin-Ho Kim, In-Hwa Chang


CONCRETE AND MASONRY STRUCTURES

1259 Strut-and-Tie Nonlinear Cyclic Analysis of Concrete Frames / Nicholas H. T. To, Sri Sritharan, Jason M. Ingham

1269 In-Plane Experimental Behavior of Stone Masonry Walls under Cyclic Loading / G. Vasconcelos, P. B. Lourenco

SPECIAL DESIGN ISSUES

1278 Experimental Study on the Behavior of Full-Scale Composite Steel Frames under Furnace Loading Yuli Dong and Kuldeep Prasad

STRUCTURAL IDENTIFICATION AND MONITORING

1290 Generalization Capability of Neural Network Models for Temperature-Frequency Correlation Using Monitoring Data / Y. Q. Ni, H. F. Zhou, and J. M. Ko
TECHNICAL NOTES
1301 Comparison of Field and Wind Tunnel Pressure Coefficients for a Light-Frame Industrial Building / G. Doudak, G. MClure, I. Smith, T. Stathopoulos
TECHNICAL PAPERS

ANALYSIS AND COMPUTATION

- Efficient Beam-Column Element with Variable Inelastic End Zones / Chin-Long Lee, Filip C. Filippou
- In-Plane Load-Deflection Behavior and Buckling of Pressurized Fabric Arches / William G. Davids
- Reexamination of the Vibrational Period of Coupled Shear Walls by Differential Transformation / Y. H. Chai and Yanfei Chen

METAL AND COMPOSITE STRUCTURES

- Experimental Investigation of the Interaction of Local and Overall Buckling of Stainless Steel I-Columns / Jurgen Becque, Kim J. R. Rasmussen
- Numerical Investigation of the Interaction of Local and Overall Buckling of Stainless Steel I-Columns / Jurgen Becque, Kim J. R. Rasmussen
- Analysis of Steel Plate Shear Walls Using the Modified Strip Model / Jonah J. Shishkin, Robert G. Driver, Gilbert Y. Grondin
- Finite-Element Investigation and Design Recommendations for Perforated Steel Plate Shear Walls / Ronny Purba, Michel Bruneau
- Deformation Analysis of Prestressed Continuous Steel-Concrete Composite Beams / Jianguo Nie, Muxuan Tao, C. S. Cai, Shaojing Li

SEISMIC EFFECTS

- Damage Avoidance Design Steel Beam-Column Moment Connection Using High-Force-to-Volume Dissipators / Thomas J. Mander, Geoffrey W. Rodgers, J. Geoffrey Chase, John B. Mander, Gregory A. MacRae, Rajesh P. Dhakal
- Seismic Behavior of PC Column and Steel Beam Composite Moment Frame with Posttensioned Connection / Yuntian Wu, Yan Xiao, J. C. Anderson

SPECIAL DESIGN ISSUES

- Response of Restrained Concrete Beams under Design Fire Exposure / M. B. Dwaikat, V. K. R. Kodur

STRUCTURAL OPTIMIZATION

- Flexural and Shear Design of FRP Plated RC Structures Using a Genetic Algorithm / Ricardo Perera, Francisco B. Varona

DISCUSSIONS AND CLOSURES

- Discussion of "Mechanics and Slenderness Limits of Sway-Restricted Reinforced Concrete Columns" by Jostein Hellesland / I. Dario Aristizabal-Ochoa
- Closure / Jostein Hellesland
nr 12

1435 Editor's Note / Sashi K. Kunnath

TECHNICAL PAPERS
SEISMIC EFFECTS
1440 Effects of Heating on the Behavior of Lead-Rubber Bearings. I: Theory / Ioannis V. Kalpakidis, Michael C. Constantinou
1450 Effects of Heating on the Behavior of Lead-Rubber Bearings. II: Verification of Theory / Ioannis V. Kalpakidis, Michael C. Constantinou
1462 Study on the Effect of Uplift-Restraint on the Seismic Response of Base-Isolated Structures / Panayiotis C. Roussis
1472 Prediction of Fatigue Life of Welded Beam-to-Column Connections under Earthquake Loading / Jun Iyama, James M. Rides
1481 Ultimate State of Thin-Walled Circular Steel Columns under Bidirectional Seismic Accelerations / Yoshiaki Goto, Masayuki Muraki, Makoto Obata

METAL STRUCTURES
1491 Local Buckling of RBS Beams Subjected to Cyclic Loading / Feng-Xiang Li, fori Kanao, Jun Li, Kiyotaka Morisako
1499 Cyclic Testing of a Buckling Restrained Braced Frame with Unconstrained Gusset Connections / Jeffrey W. Berman, Michel Bruneau
1511 Design of Steel Plate Shear Walls Considering Boundary Frame Moment Resisting Action / Bing Qu, Michel Bruneau

MASONRY STRUCTURES
1522 Modeling of Out-of-Plane Behavior of Masonry Walls / Liborio Cavaleri, Marinella Fossetti, Maurizio Papia

STRUCTURAL IDENTIFICATION
1533 Experimental Study of Damage Detection by Data-Driven Subspace Identification and Finite-Element Model Updating / Jian-Huang Weng, Chin-Hsiung Loh, Jann N. Yang

DISCUSSIONS AND CLOSURES
1545 Discussion of "Long-Term Behavior of Prestressed Composite Beams at Service Loads for One Year" by Weichen Xue, Min Ding, Chi He, and Jie Li / Shiming Chen, Yuan Lin
1547 Closure / Weichen Xue, Min Ding, Chi He, Jie Li
1549 Reviewers
1556 2009 Annual Index