

LIST OF PAPERS BY MEMBERS OF  
EARTHQUAKE RESISTANT STRUCTURE RESEARCH CENTER

- SEISAN-KENKYU : Monthly Journal of the Institute of Industrial  
Science, University of Tokyo
- JSCE : The Japan Society of Civil Engineers
- JSMA : The Japan Society of Mechanical Engineers
- AIJ : The Architectural Institute of Japan
- JSSC : The Japan Society of Steel Construction
- JSSMFE : The Japanese Society of Soil Mechanics and  
Foundation Engineering
- \* : Written in Japanese

F. Kumazawa and T. Okada: "Flexural Behavior of RM Concrete Block  
Wall Girders With Large Size Reinforcing Bars," Bulletin of  
Earthquake Resistant Structure Research Center, No.23, pp.13-22,  
Institute of Industrial Science, University of Tokyo, March 1990.

C. Tamura, K. Konagai, K. Ohi, F. Yamazaki and Y. Nakano: "Damage  
Report of the Loma Prieta Earthquake on October 17, 1989,"  
Bulletin of Earthquake Resistant Structure Research Center,  
No.23, pp.115-124, Institute of Industrial Science, University of  
Tokyo, March 1990.

\* Y. Nakano and T. Okada: "Reliability Analysis of Reinforced  
Concrete Buildings in Japan," SEISAN-KENKYU, Vol.42, No.3, pp.9-  
14, Institute of Industrial Science, University of Tokyo, March  
1990.

\* F. Kumazawa and T. Okada: "Shaking Table Tests of Reinforced  
Concrete Small Scaled Model Structure," SEISAN-KENKYU, Vol.42,  
No.3, pp.43-46, Institute of Industrial Science, University of  
Tokyo, March 1990.

Michael G. Melkumian: "Hysteresis Model of the Shear Behavior of  
R/C Multistory Frame Buildings with Diaphragms under Seismic  
Actions (Part 1) Principle of Formation," SEISAN-KENKYU, Vol.42,  
No.12, pp.34-37, Institute of Industrial Science, University of  
Tokyo, December 1990.

\* T. Okada and others: "Post-Installed Anchor," GIJUTSU-SHOIN,  
June 1990.

\* T. Okada and Y. Nakano and others: "Seismic Design of Reinforced  
Concrete Buildings Based on Ultimate Strength Concept," GIHO-DO  
Press, August 1990.

- \* T. Okada and Y. Nakano and others: "Lessons from Armenia Spitak Earthquake," Japan Building Center, August 1990.
- \* T. Okada: "Lessons from Damages due to Recent Severe Earthquakes," The 300th anniversary of Concrete Journal, Vol.28, No.9, pp.128-129, Japan Concrete Institute, September 1990.
- \* T. Okada: "School Buildings - Back to the Symbol in Town," Guide-book for Planning of Educational Facilities, p.1, Research Institute of Educational Facilities, October 1990.
- \* T. Okada and S. Nakata: "Studies on the Earthquake in Philippines," The Building Letter, No.257, pp.1-6, The Building Center of Japan, November 1990.
- F. Kumazawa and T. Okada: "Flexural Behavior of RM Concrete Block Wall Girders," The Sixth Meeting of the Joint Technical Coordinating Committee of Masonry Research, U.S.-Japan Cooperative Research Program for Masonry Building Research, August 20, 21 and 22, 1990 Port Ludlow, Washington, USA, August 1990.
- \* M. Tajima, F. Kumazawa, T. Okada and others: "A Study on Floor Vibration Making Much of Habitability, -Part I Excitation by Walking-," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.B, pp.153-154, October 1990.
- \* R. Numata, F. Kumazawa, T. Okada and others: "A Study on Floor Vibration Making Much of Habitability, -Part II A Tentative Plan of Structural Design of Slab Based on Sensitiveness to Vertical Vibration-," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.B, pp.155-156, October 1990.
- \* T. Ugata and T. Okada: "Earthquake Response Evaluation of Buildings Considering Soil-Structure Interaction," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.B, pp.413-414, October 1990.
- \* F. Kumazawa and others: "Studies on Splices of Longitudinal Reinforcement of RC Structure (Part 2. Investigation on Existing Test Data of Lap Splices -I-)," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.C, pp.669-670, October 1990.
- \* R. Tanaka, F. Kumazawa and others: "Studies on Splices of Longitudinal Reinforcement of RC Structure (Part 3. Investigation on Existing Test Data of Lap Splices -II-)," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.C, pp.671-672, October 1990.
- \* T. Sakurada, F. Kumazawa and others: "Studies on Splices of Longitudinal Reinforcement of RC Structure (Part 4. Compare with Several Codes)," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.C, pp.673-674, October 1990.
- \* Y. Nakano and others: "Studies on Splices of Longitudinal Reinforcement of RC Structure (Part 6. Design Concept for R/C Members with Gas Pressure Welded Joints)," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.C, pp.677-678, October 1990.

- \* H. Hosoya, T. Okada and others: "A Study on Reinforced Concrete of Small Scaled Model (Properties and Bond Behavior)," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.C, pp.725-726, October 1989.
- \* T. Inoue, F. Kumazawa, Y. Nakano and T. Okada: "Earthquake Response Analysis of Nine-Story Prefabricated Reinforced Concrete Buildings to 1988 Spitak Earthquake (Part 1. Response Analysis by SDOF System)," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.C, pp.745-746, October 1989.
- \* B. Guan, F. Kumazawa and T. Okada: "Earthquake Response Analyses with Fiber-Segment Model on Reinforced Concrete Weak-Model Structure," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.C, pp.749-750, October 1990.
- \* T. Okada, F. Kumazawa and others: "Shaking Table Test of Reinforced Concrete One-Fifteenth Scaled Model Structures (Part. 1 Objectives and Outline of Testing)," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.C, pp.1027-1028, October 1990.
- \* K. Ota, F. Kumazawa, T. Okada and others: "Shaking Table Test of Reinforced Concrete One-Fifteenth Scaled Model Structures (Part. 2 Test Results)," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.C, pp.1029-1030, October 1990.
- \* C. Noda, F. Kumazawa, T. Okada and others: "A Study on Recognition to Sensitiveness of Vertical Vibration, -Part I Evaluation of Sensitiveness by Experiment-," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.D, pp.333-334, October 1990.
- \* Y. Nishiyama, F. Kumazawa, T. Okada and others: "A Study on Recognition to Sensitiveness of Vertical Vibration, -Part II Transmission of Vertical Vibration to Parts of Human Body-," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.D, pp.335-336, October 1990.
- \* N. Tanaka, F. Kumazawa, T. Okada and others: "A Study on Recognition to Sensitiveness of Vertical Vibration, -Part III Evaluation about Expression in Words-," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.D, pp.337-338, October 1990.
- \* E. Kajita, F. Kumazawa, T. Okada and others: "A Study on Recognition to Sensitiveness of Vertical Vibration, -Part IV Relation between Component of Vibration and Evaluation to Sensitiveness-," Summaries of Technical Papers of Annual Meeting, AIJ, Vol.D, pp.339-340, October 1990.
- \* K. Nakayama, F. Kumazawa, T. Okada and others: "A Study on Sensitiveness to Vertical Vibration," Proceedings of the Annual Transactions of AIJ, Kanto Branch, Structural and Construction Engineering, pp.5-8, January 1991.
- \* K. Nakayama, F. Kumazawa, T. Okada and others: "A Tentative Policy to Design of Slab from the View Point of A Countermeasure to Vertical Vibration," Proceedings of the Annual Transactions of AIJ, Kanto Branch, Structural and Construction Engineering, pp.13-16, January 1990.

- \* Y. Nakano: "Studies on Bi-directional Effects of Seismic Action to Weak Beam and Weak Column R/C Models Based on Observation Results," Symposium on Bi-directional Effects of Seismic Action to R/C Buildings, pp.29-36, January 1991.
  - \* T. Okada and others: "Report on Expert Team of Japan Disaster Relief Team (JDR) on the Earthquake in Philippines of July 16, 1990," Japan International Cooperation Agency (JICA), August 1990.
  - \* T. Okada: "A Report of Damages due to the Philippines Luzon Earthquake, 1990," The Journal of Building Disaster Prevention, No.156, pp.29-36, The Japan Disaster Prevention Association, December 1990.
  - \* R. Tanaka and Y. Nakano: "Studies on the Design Concepts for Gas Pressure Welded Joints," Proceeding of Fourth Meeting of Technical Research Committee on Gas Pressure Welding," pp.38-45, May 1990.
  - \* T. Okada and others: "Ultimate Strength and Deformation Capacity of Building in Seismic Design (1990)," The Architectural Institute of Japan, October 1990.
  - \* T. Okada: "A Recent Tendency of Seismic Design for Building Structures," Proceeding of the 33th IIS Seminar, pp.1-4, Foundation for Promotion of Industrial Science, November 1990.
  - \* Y. Nakano: "Reliability Analysis of R/C Buildings and Its Application in Structural Design," Proceeding of the 33th IIS Seminar, pp.5-22, Foundation for Promotion of Industrial Science, November 1990.
  - \* T. Okada: "Cooperative Research Activities in the Industrial Field at Institute of Industrial Science, University of Tokyo," Universities and Students, pp.7-11, Ministry of Education, November 1990.
  - \* T. Okada and others: "Guideline for Evaluation of Seismic Capacity of Existing Reinforced Concrete Buildings," The Japan Association for Building Disaster Prevention, December 1990.
  - \* T. Okada and others: "Design Guidelines for Earthquake Resistant Reinforced Concrete Buildings Based on Ultimate Strength Concept," The Architectural Institute of Japan, November 1990.
  - \* T. Ishikawa, F. Kumazawa, T. Okada: "A study on Evaluation of Sensitiveness to Vertical Vibration," Reports for Noise Research Committee, N-91-02, pp.1-10, Sound Institute of Japan, January 1990.
- C. Tamura, K. Konagai and J. D. Ortiz: Photoelastic Method for Analysis of Stress and Strain in Massive Structure Models using Laser-Light-Sheet, Bull. ERS, No.23, pp.3-12, 1990.
- C. Tamura, K. Konagai, K. Ohi, F. Yamazaki and Y. Nakano: Damage Report of the Loma Prieta Earthquake on October 17, 1989, Bull. ERS, No.23, pp.115-124, 1990.

- C. Tamura: Recent Activities of ERS Group, SEISAN-KENKYU, Vol.42, No.3, pp.1-2, 1990.
- C. Tamura: On Maximum Acceleration of Earthquake Ground Motion at Firm Layer Overlaying Surface Deposit in Tokyo Downtown Area, SEISAN-KENKYU, Vol.42, No.3, pp.149-154, 1990.
- \* C. Tamura, Konagai K. and J.D. Ortiz: Analysis of Stress and Strain in Massive Structure Models using Laser-Light-Sheet, SEISAN-KENKYU, Vol.42, No.3 pp.27-30, 1990.
- K. Konagai and C. Tamura: Visualization of Dynamic Change in Configuration of Particle Assemblage, Proc. of European Conference on Structural Dynamics EURODYN '90, Bochum, Germany, pp.837-842, July, 1990.
- \* K. Konagai and C. Tamura: Visualization and Analysis of Dynamic Behavior of Granular Structure Models, Proc. of 8th JEES, Vol.2, pp.1221-1226, 1990.
- \* C. Tamura, S. Okamoto and K. Konagai: Deformation and Strain induced in Tunnels during Earthquakes, Proc. of 8th JEES, Vol.1, pp.625-630, 1990.
- \* G. Han, X. Kong and C. Tamura: Model Vibration Tests and Numerical Analysis on Dynamic Response of Concrete Faced Rockfill Dam, Proc. 8th JEES, Vol.2, pp.1983-1988, 1990.
- \* C. Tamura: Reconnaissance Report on the Loma Prieta Earthquake of October 17, 1989 -Introduction-, Proc. of JSCE No.421/VI-13, pp.25-27, 1990.
- \* T. Inatomi, K. Konagai and M. Kazama: Reconnaissance Report on the Loma Prieta Earthquake of October 17, 1989 -Damage on Port and Harbor Facilities-, Proc. JSCE, No.422/I-14, pp.71-83, 1990.
- J. Dong, F. Tatsuoka and C. Tamura: Anisotropic Deformation and Strength Properties of Wet-Tamped Sand in Plane Strain Compression at Low Pressures (Part I), SEISAN-KENKYU, Vol.42, No.11, pp.33-36, 1990.
- J. Dong, F. Tatsuoka and C. Tamura: Anisotropic Deformation and Strength Properties of Wet-Tamped Sand in Plane Strain Compression at Low Pressures (Part II), SEISAN-KENKYU, Vol.42, No.12, pp.15-18, 1990.
- \* T. Uomoto, T. Yajima and C. Tamura: Dynamic Properties of Reinforced Concrete Members under Cyclic Large Deformation, SEISAN-KENKYU, Vol.42, No.12, pp.38-41, 1990.
- \* K. Hirata, C. Tamura and K. Konagai: Study on Dynamic Behavior of granular embankment, Proc. of Annual Convention of JSCE, pp.814-815, 1990.
- \* M. Baba, C. Tamura and K. Konagai: Fundamental Study on Dynamic Behavior of Expanded-polystyrol Block Structures, Proc. of Annual Convention of JSCE, pp.1062-1063, 1990.

\* J. Zheng, C. Tamura and K. Konagai: Effect of dipping Base and its expanse on Ground Surface, Proc. of Annual Convention of JSCE, pp.1128-1129, 1990.

J. D. Ortiz, K. Konagai and C. Tamura: New Photoelastic Method for Analysis of Stress and Strain in Massive Structure Models, Proc. of Annual Convention of JSCE, pp.206-207, 1990.

\* T. Noguchi, C. Tamura and T. Suzuki: Effect of Joint of Shield-Driven-Tunnel Segments and the Surrounding Soil on Equivalent Axial Stiffness, Proc. of Annual Convention of JSCE, pp.1222-1223, 1990.

C. Tamura and K. Konagai: Deformation of Tunnels during Earthquakes, Preprint of Int. Concrete Conference 90, Tehran, Iran, 1990.

K. Konagai and C. Tamura: Visualization of Dynamic Behavior of Particle Assemblage in Underwater Granular Structure Models, Preprint of Int. Concrete Conference 90, Tehran, Iran, 1990.

\* C. Tamura: On Dynamic Characteristics of Expanded-polystyrol Block Structures, The Foundation Engineering and Equipment, Vol.18, No.12, 1990.

\* T. Noguchi and C. Tamura: On Influence of Rigidity of Soil surrounding Shield Tunnel upon Equivalent Rigidity of the Tunnel, Symposium on Underground Urban Systems, 1990.

C. Tamura and T. Noguchi: On Influence of Rigidity of Soil surrounding Shield Tunnel upon Equivalent Rigidity of the Tunnel, 3rd US Conference on Lifeline Earthquake Engineering, ASCE, 1991.

\* H. Shibata: "Human Error for the Cause of Seismic Failure of Equipment and Piping Systems in Industrial Facilities - Its Mechanism and Prevention", General Research Report on "Human Error for the Security and Safety", SECOM Foundation for Science and Technology Promotion, p.7-1 - 7-41, Feb. 1990.

\* T. Fukuda, H. Shibata and A. Suzuki: "On Sloshing Control in a Liquid Vessel by Adaptive Control Theory - Part 1 Application of Observer Method for Water Column Oscillation in U-tube", Trans. of JSME, Ser. C, Vol.56, No.522, p.67-330, Feb. 1990.

\* S. Yabana, H. Shibata: "Stochastic Analysis on Response Change due to Deteriorating of Rubber-pads in Base-isolation System for Fast Breeder Reactor (1st Report)", Journal of IIS (Seisan-kenkyu, Inst. of Ind. Sci., Univ. of Tokyo), Vol.42, No.3, p.47-50, Mar. 1990.

\* H. Shibata and A. Nagai: "On Human Effect in Design Process to Seismic Failure of Industrial Facilities", Journal of IIS, Vol.42, No.3, p.15-18, Mar. 1990.

\* H. Shibata: "Aseismic Design of Communication System and Some Comments", Preprint on Seminar "1st Conf. on the Security of ISDN System", "The Institute of Electronics, Information and Communication Engineers" (Tokyo), p.S.2-1 - S-2-9, May 1990.

H. Shibata: "On Reliability of Mechanical Logics and its Application", Proc. of 5th International Conference on Structural Safety and Reliability, ICOSSAR'89, p.2203-2210, May 1990.

H. Shibata: "Stability of a Piping System with Nonlinear Multi-supporting Devices under a Seismic-condition", Proc. of ASME PV&P Conf., PVP197, p.3-10, June 1990.

H. Shibata: "The Necessity of Seismic Trigger Systems for Critical Facilities", JSME International Journal, Ser.III, Vol.33, No.3, p.384-393, Sept. 1990.

H. Shibata and K. Abe: "Limitation and Further Development of Seismic PSA in the View Points of Design Human Error and Failure of Safety-related Logical System", Preprint for OECD, CSNI Workshop on Probabilistic Safety Assessment (Santa Fe), 9pp. (in printing), Sept. 1990.

H. Shibata and K. Abe: "Seismic Trigger System - Post-earthquake Inspection - Evaluation of Capability of Restarting", Preprint for Joint ANS/ASME Conference on Excellent and Economics Nuclear Plant Performance (Newport), 17pp., Sept. 1990.

N. Ogawa, C. Minowa, T. Chiba, H. Kobayashi and H. Shibata: "A Seismic Test of Large-Scale Liquid Filled Piping (Related to Liquid Boundary Conditions)", JSME International Journal, Ser. III, Vol.33, No.3, p.357-365, Sept. 1990.

H. Shibata and K. Abe: "Research and Application of Seismic PSA in Japan - Problems Which Should Be Solved", Proc. of 3rd Symposium on Current Issues Related to Nuclear Power Plant Structures, Equipment and Piping (Orlando), 24pp., (In printing), Dec. 1990.

H. Shibata: "Uncertainty in Earthquake Engineering in Relation to Critical Facilities", Preprint for 1st International Symposium on Uncertainty Modeling and Analysis, IEEE (Maryland), 6pp., Dec. 1990.

\* T. Fujita: "Development and Implementation of a Tuned Mass Damper Using XY-Motion Mechanism for Vibration Control in Tall Buildings", SEISAN-KENKYU, Vol.42, No.5, pp.263-268, May 1990.

\* T. Fujita, K. Nakajima, H. Sugimoto, Y. Seko and T. Omi: "A 3-Dimensional Seismic Isolation Floor Using a Conversion Mechanism of Vibration Direction for Vertical Isolation", Trans. of JSME, Vol.56, No.526, pp.33-36, June 1990.

\* Y. Takahashi, K. Katayama, N. Murai and T. Fujita: "A Study on Active Vibration Control System Using Linear Motor (Part1 : SDOF system)", Journal of Struct. Constr. Engng, AIJ, No.412, pp.89-99, June 1990.

\* T. Fujita, Y. Tagawa, W. H. Teh, N. Murai, T. Yukawa, A. Takeshita and Y. Takahashi: "Fundamental Study of Active Micro-Vibration Control Using Piezoelectric Actuator", Symposium on Control of Vibration and Motion, JSME, No.900-42, pp.145-150, July 1990.

- \* N. Tsujiuchi, T. Koizumi, F. Kishimoto and T. Fujita: "Control of Structural Vibration by Isolation Device Using Adaptive Control", Dynamics and Design Conf., JSME, No.900-44, pp.409-412, July 1990.
- \* K. Katayama, Y. Takahashi, N. Murai and T. Fujita: "Active Microtremor Control System", Dynamics and Design Conf., JSME, No.900-44, pp.413-416, July 1990.
- T. Matsuda, Y. Oka and T. Fujita: "Test on Seismic Isolation Elements for FBR", 1990 International Fast Reactor Safety Meeting, Vol.3, pp.413-422, August 1990.
- T. Fujita, S. Fujita, S. Tazaki, T. Yoshizawa and S. Suzuki: "Research, Development and Implementation of Rubber Bearings for Seismic Isolation", JSME International Journal (Series 3), Vol.33, No.3, pp.394-403, September 1990.
- T. Fujita, Y. Sasaki, S. Fujimoto and C. Tsuruya: "Seismic Isolation of Industrial Facilities Using Lead-Rubber Bearing", JSME International Journal (Series 3), Vol.33, No.3, pp.427-434, September 1990.
- \* K. Ishida, H. Shiojiri, H. Shibata and T. Fujita: "Seismic Isolation Test Program", Proceedings of the Eighth Japan Earthquake Engineering Symposium, 1990, pp.1707-1712, December 1990.
- \* T. Matsuda, Y. Oka and T. Fujita: "Demonstration Test on Seismic Isolation Elements of Laminated Rubber Bearing Type for FBR", Proceedings of the Eighth Japan Earthquake Engineering Symposium, 1990, pp.1701-1706, December 1990.
- \* T. Fujita, Y. Fujii, J. Numakawa, I. Shimoda and M. Ikenaga: "Lead-Rubber Bearing for Seismic Isolation of Wooden Houses", Proceedings of the Eighth Japan Earthquake Engineering Symposium, 1990, pp.1773-1778, December 1990.
- \* T. Fujita, Y. Fujii, J. Numakawa, S. Tazaki and S. Suzuki: "High Damping Rubber Bearings for Seismic Isolation of Wooden Houses", Proceedings of the Eighth Japan Earthquake Engineering Symposium, 1990, pp.1779-1784, December. 1990.
- \* T. Fujita, K. Kabeya, Y. Hayamizu, S. Aizawa, M. Higashino, T. Kubo, N. Haniuda and T. Mori: "Fundamental Study of Semi-Active Seismic Isolation System Using Controllable Friction Damper", Proceedings of the Eighth Japan Earthquake Engineering Symposium, 1990, pp.1929-1934, December 1990.
- \* T. Fujita and H. Miyano: "On the Performance of a Tuned Mass Damper Using XY-Motion Mechanism for Vibration Control in Tall Buildings", SEISAN-KENKYU, Vol.42, No.12, pp.19-21, December 1990.
- \* T. Fujita, M. Ikenaga and I. Shimoda: "Experimental Study of Hysteretic Restoring Force Characteristics and Breaking Conditions of Lead-Rubber Bearing (The Case of Bolt-Type Connection)", Trans. of JSME, Vol.57, No.533, January. 1991.



T. Katayama, F. Yamazaki, S. Nagata, L. Lu and T. Turker: "A Strong Motion Database for The Chiba Seismometer Array and Its Engineering Analysis", Earthquake Engineering and Structural Dynamics, Vol.19, No.8, pp.1089-1106, 1990.

S. Nagata, T. Katayama, F. Yamazaki, L. Lu and T. Turker: "A Dense Seismograph Array in Chiba, Japan and Its Strong Motion Database", Proc. of Fourth U.S. National Conference on Earthquake Engineering, Palm Spring, California, Vol.1, pp.357-366, 1990.

F. Yamazaki and M. Shinozuka: "Simulation of Stochastic Fields by Statistical Preconditioning", Journal of Engineering Mechanics, ASCE, Vol.116, No.2, pp.268-287, 1990.

L. Lu, F. Yamazaki and T. Katayama: "Soil Amplification Based on the Chiba Array Database", Proc. of 8th Japan Earthquake Engineering Symposium, pp.511-516, 1990.

T. Turker, F. Yamazaki and T. Katayama: "Analysis of Seismic Wave Propagation Based on the Chiba Array Data", Proc. of 8th Japan Earthquake Engineering Symposium, pp.505-510, 1990.

F. Yamazaki, S. Nagata, T. Katayama, L. Lu and T. Turker: "An Array Database of Earthquake Ground Motions Recorded at Chiba Experiment Station", Bulletin of Earthquake Resistant Structure Research Center, No.23, pp.49-72, 1990.

C. Tamura, K. Konagai, K. Ohi, F. Yamazaki, and Y. Nakano: "Damage Report of the Loma Prieta Earthquake on October 17, 1989", Bulletin of Earthquake Resistant Structure Research Center, No.23, pp.115-124, 1990.

L. Cret, H. Yokoyama, F. Yamazaki, S. Nagata, T. Katayama, M. Ebihara and A. Ohtsuki: "Human Behavior During Evacuation: Experiment", Proc. of 45nd Annual Meeting of JSCE, Vol. I, pp.412-413, 1990.

H. Yokoyama, L. Cret, F. Yamazaki, S. Nagata and T. Katayama: "Human Behavior During Evacuation: Analysis of Experiment", Proc. of 45nd Annual Meeting of JSCE, Vol. I, pp.414-415, 1990.

T. Turker, F. Yamazaki and T. Katayama: "Seismic Wave Propagation During the Chibaken-Toho-Oki-Earthquake", Proc. of 45nd Annual Meeting of JSCE, Vol. I, pp.1018-1019, 1990.

C. Villacis and T. Katayama: "A Method for Estimating Losses from Earthquakes", Proc. of 45nd Annual Meeting of JSCE, Vol. I, pp.1040-1041, 1990.

L. Lu, F. Yamazaki, T. Katayama: "Estimation of Frequency Response Function from Earthquake Ground Motion", Proc. of 45nd Annual Meeting of JSCE, Vol. I, pp.1086-1087, 1990.

## LIST

- \* K. Koh and K. Takanashi: "Optimum Design Based on Structural Reliability Theory (Decision marking of the load factor for structures with deteriorating resistance during the life time of structures)," Journal of Structural and Construction Engineering, AIJ, No.418, pp.81-86, December 1990.
- \* K. Ohi, K. Takanashi and Y. Honma: "Energy Input Rate Spectra of Earthquake Ground Motions," Journal of Structural Construction Engineering, AIJ, No.420, February 1991.
- \* K. Takanashi, A. Fukushima, H. Komatsu, Y. Shimawaki and H. Kuwamura: "Buckling Strength of Centrally Loaded Compressive High-Strength Steel Members," Journal of Structural Engineering, AIJ, Vol. 37B, March 1991.
- M. Nakashima, K. Takanashi and H. Kato: "Test of Steel Beam-Columns Subject to Sidesway," Journal of Structural Engineering, ASCE, Vol.116 No.9, pp.2516-2531, September 1990.
- \* K. Ohi and K. Takanashi: "Energy Input Rate Spectra and Instantaneous Power Spectra," Japan NCTAM, 1990. Preprint, pp.219-220, December 1990.
- \* Y. Honma, K. Ohi and K. Takanashi: "A New Spectral Analysis Technique for The Evaluation of Non-Stationary Seismic Load Effects," Proc. of the 8th Japan Earthquake Engineering Symposium 1990, Vol.2 pp.1959-1964, December 1990.
- \* T. Okada and K. Takanashi: "The Resonance Responses of Structure with Sliding Floor Loads," Proc. of the 8th Japan Earthquake Engineering Symposium 1990, Vol.2 pp.1587-1592, December 1990.
- \* K. Koh and K. Takanashi: "Probability of safety of structures with deteriorating resistance during the lifetime of structures," Summaries of Technical Papers of Annual Meeting AIJ 1990, Vol.B pp.169-170, October 1990.
- \* K. Ohi, K. Takanashi and Y. Honma: "Energy input rate spectra of earthquake ground motion," Summaries of Technical Papers of Annual Meeting AIJ 1990, Vol.B pp.283-284, October 1990.
- \* H. Kondo, K. Takanashi, K. Ohi, L. Meng, H. Kuwamura and T. Suzuki: "Earthquake Resistant Behavior of Low YR High-strength Steel Beam-Column," Summaries of Technical Papers of Annual Meeting AIJ 1990, Vol.C pp.1354-1358, October 1990.
- \* L. Meng, K. Takanashi, K. Ohi and H. Kuwamura: "Collapse modes due to earthquake excitations and wind pressures examined by the on-line response tests," Summaries of Technical Papers of Annual Meeting AIJ 1990, Vol.C pp.1383-1384, October 1990.
- \* T. Okada and T. Takanashi: "The resonance responses of structure with sliding floor loads," Summaries of Technical Papers of Annual Meeting AIJ 1990, Vol.C pp.1385-1386, October 1990.

\* J. Kim, K. Takanashi and K. Koh: "A discussion on the limitations of axial forces and the slenderness ratios of steel columns," Summaries of Technical Papers of Annual Meeting AIJ 1990, Vol.C pp.1461-1462, October 1990.

\* K. Takanashi, A. Elnashai, Y. Shimawaki and H. Kondo: "Experimental behavior of composite partially encased beam-columns under cyclic loading," Summaries of Technical Papers of Annual Meeting AIJ 1990, Vol.C pp.1471-1472, October 1990.

\* R. Hirabayashi and K. Takanashi: "Limit Analysis on a Bearing-type Bolt Connection," Summaries of Technical Papers of Annual Meeting AIJ 1990, Vol.C pp.1559-1560, October 1990.

K. Takanashi: "Upgrading Seismic Resistance," Work shop on Use of Steel in Refurbishment, Naples, Italy, December 1990.

\* K. Miyasako, K. Takanashi and Y. Hangai: "Buckling Strength of Plunger for Hydraulic Elevator," JSMA, January 1991.

Y. Hangai and X. Lin: "Geometrically Nonlinear Analysis in the Vicinity of Critical Points by the Generalized Inverse," International Journal of Space Structures, Vol.4, No.4, pp.181-191, 1989.

Y. Hangai and K. Kawaguchi: "Analysis of Shape-Finding Process of Unstable Link Structures," Bulletin of International Association of Shell and Spatial Structures, Vol.30, No.2, pp.116-128, 1989.

K. Kawaguchi and Y. Hangai: "Analysis of Stabilizing Paths and Stability of Kinematically Indeterminate Frameworks," Proceedings of the Third Summer Colloquium on Shell and Spatial Structures, pp.195-204, Taegu, Korea, August 1990.

Y. Hangai, F. Guan, H. Magara and K. Okamura: "Elasto-Plastic Buckling Analysis of Shallow Truss Structures by the Generalized Incremental Method," Proceedings of the Third Summer Colloquium on Shell and Spatial Structures, pp.205-212, Taegu, Korea, August 1990.

T. Suzuki and Y. Hangai: "An Analytical Method of Minimal Surfaces Based on the Finite Element Method," Proceedings of the Third Summer Colloquium on Shell and Spatial Structures, pp.343-358, Taegu, Korea, August 1990.

T. Tanami and Y. Hangai: "Shape Analysis of Structures with Constraint Conditions for Eigen-Values and Modes in the Eigen-Value Problem," Proceedings of the Third Summer Colloquium on Shell and Spatial Structures, pp.359-370, Taegu, Korea, August 1990.

Y. Hangai, K. Kawaguchi and K. Oda: "The Structural Behaviours of Truss Structures Stabilized by Cable Tension," Proceedings of the Third Summer Colloquium on Shell and Spatial Structures, 413-430, Taegu, Korea, August 1990.

S. Kim, T. Tanami and Y. Hangai: "Direct Snapping Behaviours of Shallow E.P. Shells," Proceedings of the Third Summer Colloquium on Shell and Spatial Structures, pp.431-440, Taegu, Korea, August 1990.

Y. Hangai: "Shape Analysis of Structures," Theoretical and Applied Mechanics, Vol.39, University of Tokyo Press, pp.11-28, 1990.

M. Frick, Y. Hangai and T. Tanami: "Static and Dynamic Analysis of Physical Shells, Proceedings of the 40th Japan National Congress for Applied Mechanics, pp.101-104, 1990.

Y. Hangai, and K. Kawaguchi: "Shape-Finding of Unstable Structures," FORMA, Vol.5, pp.29-41, 1990.

S. Teachavorasinskun, S. Shibuya, F. Tatsuoka, H. Kato and N. Horii: "Stiffness and Damping of Sands in Torsion Shear", Proc. of International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, Vol.1, pp.103-110, March 1991.

S. Teachavorasinskun, C-S. Park, H. Kato, S. Shibuya and F. Tatsuoka: "Deformation and Strength Characteristics of Sand in Monotonic and Cyclic Torsional Simple Shear", Proc. of 25th Annual Conference of JSSMFE, pp.461-464, June 1990.

S.K. Ampadu and F. Tatsuoka: "Effect of Consolidation Stress Path on Undrained Simple Shear Behaviour of Kaolin", Proc. of 25th Annual Conference of JSSMFE, pp.681-684, June 1990.

J.N. Mukabi, S.K. Ampadu and F. Tatsuoka: "Small Strain Behaviour of Undisturbed Tokyo Bay Clay in Triaxial Compression", Proc. of 25th Annual Conference of JSSMFE, pp.589-592, June 1990.

H-I. Ling, Jonathan Wu, F. Tatsuoka, T. Sato and J. Nishimura: "Strength and Deformation Characteristics of a Non-Woven Geotextile under Soil Confinement Conditions", Proc. of 25th Annual Conference of JSSMFE, pp.2003-2006, June 1990.

S. Teachvorasinskun, S. Shibuya and F. Tatsuoka: "Effect of Cyclic Prestraining on the Stiffness of Sand", Proc. of 45th JSCE Meeting, III pp.764-765, October 1990.

F. Tatsuoka, K. Yamada, M. Yasuda, S. Yamada and S. Manabe: "Cyclic Undrained Behavior of an Undisturbed Gravel for a Seismic Design of a Bridge Foundation", Proc. of International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics, Vol.1, pp.141-148, March 1991.

S. Goto, F. Tatsuoka, S. Shibuya., Y-S. Kim and T. Sato: "A Simple Gauge for Local Small Strain Measurements in the Laboratory", Soils and Foundations, Vol.31, No.1, March 1991, pp.169-180.

S. Shibuya, F. Tatsuoka and X.J. Kong: "Deformation Characteristics of Gravels Subjected to Monotonic and Cyclic Loadings -with particular reference to their small strain behaviour", Proc. of 8th Symposium of Japan Earthquake Engineering Society, Vol.2, pp.771-776, December, 1990.

F. Tatsuoka, S. Shibuya and S. Teachavorasinskun and C-S. Park: Discussion on the Paper by Bolton and Wilson, Geotechnique, Vol. 40, No.4, pp.659-664, December, 1990.

C-C. Haung and F. Tatsuoka: "Bearing Capacity of Reinforced Horizontal Sandy Ground", Geotextiles and Geomembranes, Vol.9, pp.51-82, 1990.

S. Shibuya, F. Tatsuoka, F. Abe, Y-S. Kim, C-S, Park and J.N. Mukabi: "Non-linearity in Stress-Strain Relations of a Wide Range of Geotechnical Engineering Materials", SEISAN-KENKYU, Vol.43, No.2, pp.35-38.

H-I. Ling, Jonathan T.H. Wu, and F. Tatsuoka: "Effect of In-membrane Test in Simulating Strength and Deformation Characteristics of a Non-woven Geotextile", Proc. of the North American Regional Conference on Geosynthetics, March 1991 (in press).

S. Teachavorasinskun, S. Shibuya and F. Tatsuoka: "Stress History Dependency of Stiffness of a Sand Observed in Simple Shear", SEISAN-KENKYU, Vol.42, No.3, pp.523-526, March 1990.

S. Shibuya, C-S. Park, F. Abe and F. Tatsuoka: "Small Strain Behaviour of Sands in Plane Strain Compression -Part I", SEISAN-KENKYU, Vol.42, No.9, pp.37-40, September, 1990.

C-S. Park, J. Dong, F. Abe, S. Shibuya and F. Tatsuoka: "Small Strain Behaviour of Sands in Plane Strain Compression -Part II", SEISAN-KENKYU, Vol.42, No.10, pp.20-23, October, 1990.

C-S. Park, F. Tatsuoka and S. Shibuya: "Strength and Deformation Anisotropy of Dense Silver Leighton Buzzard Sand in Plane Strain Compression", SEISAN-KENKYU, Vol.42, No.10, pp.16-19, October, 1990.

J. Dong, F. Tatsuoka, C. Tamura and T. Sato: "Anisotropic Deformation and Strength Properties of Wet-tamped Sand in Plane Strain Compression at Low Pressures - Part I", SEISAN-KENKYU, Vol.43 No.11, pp.33-36, November, 1990.

J. Dong, F. Tatsuoka, C. Tamura and T. Sato: "ditto - Part II", SEISAN-KENKYU, Vol.42, N.11, pp.15-18, December, 1990.

S. Teachavorasinskun, S. Shibuya and F. Tatsuoka: "Shear Modulus of Sand Subjected to Simple Shear", Bulletin of Earthquake Resistant Structure Research Center, No.23, pp.87-114, April, 1990.