LIST OF PAPERS BY THE MEMBERS OF

EARTHQUAKE RESISTANT STRUCTURE RESEARCH CENTER

(Jan.- Dec. 1985)

SEISAN-KENKYU: Monthly Journal of the Institute of Industrial Science,

University of Tokyo

JSCE : The Japan Society of Civil Engineers

JSME : 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

C. Tamura: "Outline of dameges from Nihonkai Chubu Earthquake of 1983", Civil Engineering in Japan, Vol.24, JSCE, 1985.

- * C. Tamura, K. Kato and K. Sakai: "Report on Damages to Earthquake Named Tentatively as August 8, 1983 Kanagawa-Yamanashi-Kenkyo Earthquake", SEISAN-KENKYU, Vol.37, No.5, May 1985.
- * C. Tamura, K. Kato and M. Morita: "Experimental Study on Dynamic Failure of Fill Dam Models Excited in Two Directions Simultaneously of Horizontal and Vertical", Reprint of 18th Earthquake Engineering Research Meeting, JSCE, July 1985.
- * C. Tamura: "Behavior of Dams Located in Focal Area of 1984 Nagano-Ken-Seibu Earthquake", Reprint of 18th Earthquake Engineering Research Meeting, JSCE, July 1985.
 - C. Tamura: "Earthquake Resistance of Hydraulic Structures", Proceedings of Japan-China Joint Seminar on Earthquake Engineering", IEM, Harbin, China, September 1985.
- * M. Tamegai, C. Tamura, H. Maeda and T. Suzuki: "On Propagation Characteristics of Axial Strain of Tunnel along the Axis, Obtained by Earthquake Observation", Reprint of 40th JSCE Annual Meeting, Part I, September 1985.
- * M. Morita, C. Tamura and K. Kato: "On Failure Acceleration at Vibration Failure Tests on Fill Dam Models Excited in Horizontal and Vertical Directions Simultaneously and with Phase Defference", Reprint of 40th JSCE Annual Meeting, Part I, September 1985.
 - T. Okada and R. Tamura: "Observation of Earthquake Response of Reinforced

- Concrete Weak-Model Structures", Bulletin of ERS, No.18, March 1985.
- * T. Okada and others: "Standard for Evaluation of Seismic Performance of Reinforced Concrete Block Masonry School Building in Japan", DAIICHIHOUKI Publishing Co.. Inc., October 1985.
 - T. Okada: "Seismic Countermeasure of Buildings", Proceedings of Japan-China Joint Seminar on Earthquake Engineering, at IEM, Harbin, P. R. C., September 1985.
 - T. Okada: "Practical Application of the Evaluation Standard in Specific Earthquake Hazard Locality", Proceedings of the First Workshop Seismic Performance of Existing Buildings May 1983, US/Japan Cooperative Research Program, April 1985.
 - T. Okada and R. Tamura: "Observation of Earthquake Response of Reinforced Concrete Weak-Model Structures", Proceedings of the Second Workshop Seismic Performance of Existing Buildings July 1984, US/Japan Cooperative Research Program, April 1985.
 - T. Okada: "Standard for Evaluation of Seismic Performance of Reinforced Concrete Block Masonry School Building in Japan -Draft-", Proceedings of the Third Workshop Seismic Performance of Existing Buildings May 1985, US/Japan Cooperative Research Program.
 - T. Okada and others: "Draft of Guidelines for Post-Earthquake Inspection and Evaluation of Earthquake Damage in Reinforced Concrete Buildings and Its Application to the Namioka Town Hospital Building", Proceedings of the Third Workshop Seismic Performance of Existing Buildings May 1985, US/Japan Cooperative Research Program.
 - T. Okada and F. Kumazawa: "Flexural Behavior of Reinforced Concrete Block Beams", The First Joint Technical Coordinating Committee on Masonry Research, U.S.-Japan Cooperative Research Program, August 1985.
 - M. Ohkubo and T. Okada: "The Outline of Post-Earthquake Damage Evaluation Guidelines of Reinforced Concrete Buildings", A Paper presented at the "International Conference on Reconstruction, Restoration and Urban Planning of Towns and Regions in Seismic Prone Area" held in Skopje, Yugoslavia, November 1985.
- * R. Tamura, N. Kadokawa and T. Okada: "Observation of Earthquake Response of Reinforced Concrete Weak-Model Structures (Part 4. Frequency of Observed Earthquake Motions and Magnification Factor in Surface Layer)", Proceedings of the Annual Convention of AIJ, October 1985.
- * R. Tamura, N. Kadokawa and T. Okada: "Observation of Earthquake Response of Reinforced Concrete Weak-Model Structures (Part 5. Response Characteristics)", Proceedings of the Annual Convention of AIJ, October 1985.
- * S. Otani, T. Okada and others: "Standard of Emergency Risk Evaluation of Earthquake Damaged R/C Buildings, National Project Development of Seismic Repair Techniques for Reinforced Concrete Structures Part 25", Proceedings of the Annual Convention of AIJ, October 1985.
- * K. Takiguchi, T. Okada and others: "Standard of First Level Earthquake

- Damage Evaluation of R/C Buildings, National Project Development of Seismic Repair Techniques for Reinforced Concrete Structures Part 26", Proceedings of the Annual Convention of AIJ, October 1985.
- * M. Ohkubo, T. Okada and others: "Standard of Second Level Earthquake Damage Evaluation of R/C Buildings, National Project Development of Seismic Repair Techniques for Reinforced Concrete Structures Part 27", Proceedings of the Annual Convention of AIJ, October 1985.
- * M. Hirosawa and T. Okada: "Application of Earthquake Damage Evaluation Standard to Namioka City Hospital Namioka Project Development of Seismic Repair Techniques of Reinforced Concrete Structures Part 28", Proceedings of the Annual Convention of AIJ, October 1985.
- * T. Nakazawa, Y. Nakano and T. Okada: "Seismic Capacity of Existing R/C Buildings, Part 1. Statistical Analysis in a High Seismic Zone", Proceedings of the Annual Convention of AIJ, October 1985.
- * Y. Nakano and T. Okada: "Seismic Capacity of Existing R/C Buildings, Part 2. Reliability Analysis on Effects of Strengthening", Proceedings of the Annual Convention of AIJ, October 1985.
- * F. Horie, T. Okada and T. Ohta: "An Example of Seismic Protection to the Fierce Animal's House and the Attached Structures in Zoo", Proceedings of the Annual Convention of AIJ, October 1985.
- * I. Sekiguchi, Y. Nakano, N. Kadokawa and T. Okada: "Seismic Performance of Existing Reinforced Concrete School Building during 1983 Kanagawa-Yamanashi-Kenkyo-Earthquake", Proceedings of the Annual Convention of AIJ, October 1985.
- * S. Okamoto, T. Okada and others: "U.S.-Japan Coordinated Earthquake Research Program on Reinforced Masonry Buildings (1), Overall Research Program", Proceedings of the Annual Convention of AIJ, October 1985.
- * Y. Yamasaki, T. Okada and others: "U.S.-Japan Coordinated Earthquake Research Program on Reinforced Masonry Buildings (2), Seismic Capacity of Reinforced Masonry Walls and Beams, Part 1. Test Plan", Proceedings of the Annual Convention of AIJ, October 1985.
- * Y. C. Wu, F. Kumazawa, S. Horiuchi and T. Okada: "U.S.-Japan Coordinated Earthquake Research Program on Reinforced Masonry Buildings (12), Seismic Capacity of Reinforced Masonry Walls and Beams, Part 11. Flexural Behavior of Reinforced Concrete Block Beam", Proceedings of the Annual Convention of AIJ, October 1985.
- * S. Horiuchi, T. Okada, L. H. Lee, F. Kumazawa, Y. Nakano and others: "Seismic Test of Existing Single Story Reinforced Concrete Block Masonry School Building, Part 1. Objectives and Method of Testing", Proceedings of the Annual Convention of AIJ, October 1985.
- * Y. Owada, T. Okada, L. H. Lee, F. Kumazawa, S. Horiuchi, Y. Nakano and others: "Seismic Test of Existing Single Story Reinforced Concrete Block Masonry Building, Part 2. Three Dimensional Test", Proceedings of the Annual Convention of AIJ, October 1985.

- * F. Kumazawa, T. Okada, L. H. Lee, S. Horiuchi, Y. Nakano and others: "Seismic Test of Existing Single Story Reinforced Concrete Block Masonry School Building, Part 3. Frame Test", Proceedings of the Annual Convention of AIJ, October 1985.
- * H. Kimura, T. Okada, F. Kumazawa, S. Horiuchi, Y. Nakano and others: "Seismic Test of Existing Double Stories Reinforced Concrete Block Masonry School Building, Part 1. Objectives and Method of Testing", Proceedings of the Annual Convention of AIJ, October 1985.
- * M. Hayashi, T. Okada, F. Kumazawa, S. Horiuchi, Y. Nakano and others: "Seismic Test of Existing Double Stories Reinforced Concrete Block Masonry School Building, Part2. Results of Testing", Proceedings of the Annual Convention of AIJ, October 1985.
- * T. Okada, Y. Owada and H. Kimura: "Evaluation of Structure Performance of Existing Reinforced Concrete Block Masonry School Buildings", Proceedings of the Annual Convention of AIJ, October 1985.
- * M. Seki, M. Teshigawara and T. Okada: "Study on Evaluation of Errors Caused in Earthquake Response Test by Actuator-Computer On-Line System (Part 1. Estimation of Hardware Errors)", Proceedings of the Annual Transactions of AIJ, Kanto Branch, July 1985.
- * M. Teshigawara, M. Seki and T. Okada: "Study on Evaluation of Errors Caused in Earthquake Response Test by Actuator-Computer On-Line System (Part 2. Effect of Errors on Earthquake Response)", Proceedings of the Annual Transactions of AIJ, Kanto Branch, July 1985.
- * R. Tamura and T. Okada: "Observation of Earthquake Response of Reinforced Concrete Weak-Model Structures (Characteristics of Observed Earthquake Motions and Response Characteristics)", Proceedings of the Annual Transactions of AIJ, Kanto Branch, July 1985.
- * Y. Nakano and T. Okada: "Seismic Capacity of Existing R/C Buildings", Proceedings of the Annual Transactions of AIJ, Kanto Branch, July 1985.

The Japan International Cooperation Agency Mission: "Recommendations on Damage Evaluation, Repair and Strengthening for Buildings Damaged by the September 19-20, 1985 Mexico Earthquakes", Report submitted to the Department of Federal District of Mexico by the Japan International Cooperation Agency Mission dispatched to Mexico from October 19 to November 22, 1985., Japan International Cooperation Agency, November 1985.

H. Shibata and others: "Nonlinear Vibration of Continuous System with Piecewise Linear Boundary Conditions", Proceedings of 9th International Conference on Nonlinear Oscilations, Kiev, USSR, Vol.3, February 1985.

H. Shibata: "Damage Prevention of Industrial Facilities and Ground Motion Evaluation", PRC-US-Japan, Workshop, Mult. Nat. Hazard Mitigation, Beijing PRC, January 1985.

* H. Shibata and others: "Seismic Behavior of the Cylindrical Wall of the Liquid Storage with Stongation of Anchor Bolts", J. of High Pressure Institute, Vol.23, No.1, January 1985.

- H. Shibata and H. Akiyama: "Seismic Capacity Testing of a Thin Wall 500 ton Cylindrical Tank", Bulletin of ERS, Inst. of Industrial Science, Univ. of Tokyo, No.18, March 1985.
- H. Shibata: "Common Reporting System for Seismic Damage from Destructive Earthquakes", Bulletin of ERS, Inst. of Industrial Science, Univ. of Tokyo, No.18. March 1985.
- * H. Shibata and others: "Study of Active Control System for Suppressing Earthquake-Induced Sloshing in Liquid Tanks", Report of ERS, Inst. of Industrial Science, Univ. of Tokyo, No.III-7, March 1985.
- * H. Shibata: "Role of Human Error in Seismic Damage of Industrial Fcilities", Preprint of JSME, Spring Meeting, #715, April 1985.
 - H. Shibata: "Damage to Piping Systems by Earthquakes", Report of USNRC Piping Review Committee, NUREG-1061, Vol.2 Addendum, April 1985.
 - H. Shibata: "Role of Human Error to the Safety of Critical Structures ----Emphasized on Earthquake Failure", 4th International Conference on Structural Safety and Reliability, ICOSSAR'85, May 1985.
 - H. Shibata: "Structural Reliability --- Effects from Seismic Response to Human Error, and Design Process", Symp. on Structural Safety and Reliability, Taipei, China Rep., June 1985.
- * H. Shibata: "Computer Aid System for Aseismic Design of Equipment", Preprint of JSME, July 1985.
 - H. Shibata and others: "The Damage Assessment of Equipment and Piping Systems under Seismic Condition Emphasized on Their Failure Modes", SMiRT-8, Brussels, Belgium, K17/1, August 1985.
 - H. Shibata and others: "Some Aspects of Stochastic Fracture Mechanics", SMiRT-8, Brussels, Belgium, M1G1/1*, August 1985.
- * H. Shibata: "Aseismic Design and Structure Dynamics" (Chapters 1 and 9), JSME ed., Nihon Engineering Pub. Co., September 1985.
- * H. Shibata and others: "Experimental Analysis of Sloshing Response of Liquid in Horizontal Cylindrical Tank", J. of Inst. for Safety of High Pressure Gas Eng'g., Vol.22, No.9 and 10, September and October 1985.
 - H. Shibata: "Effect on Human Error for Structural Design under Seismic Loadings and Its Evaluation", Workshop on Civil Eng'g. Application of Fuzzy Sets, Purdue Univ., U.S.A., October 1985.
- * H. Shibata: "Introducing Large-scale Electric Digital Computer for Aseismic Design of NPP", Preprint of JSME, Fall Meeting, #911, Oct. 1985.
 - H. Shibata and A. Gürpinar (drafting) IAEA Technical Document: "Earthquake Resistant Design of Nuclear Facilities with Limited Radioactive Inventory", Int. Atomic Energy Agency, IAEA-TECDOC-348, October 1985.
- * H. Shibata: "Design, Simulation Testing and Response Observation ---- their Relation", Lecture Note of IIS, Seminar, November 1985.

- * H. Shibata: "Role of Human Factor to Application of Structural Reliability", 7th Symposium on Design Application of Structural Reliability, The Society of Material Science Japan, December 1985.
 - H. Shibata and others (S. Eggwertz and N. C. Lind ed.): "On Reliability and Strength of Structural Components against Seismic Excitation", Prob. Methods in the Mechanics of Solids and Structures, Springer-Verlag Pub., 1985.
- * Y. Toi: "A Study on the Mean Crushing Load of Circular Clyndrical Shells", J. of the Soc. of Naval Archit. of Japan, Vol.157, 1985.
- * Y. Toi: "Simulation of the Ultimate Strength of Thin-Walled Structures", Proc. of the 5th Simulation Technology Conference, JSST, 1985.
- * Y. Toi: "Non-Axisymmetric Crushing of Axially Compressed Circular Cylindrical Shells", Proc. of the 9th Symposium on Computational Methods in Structural Engineering and Related Field, JSSC, 1985.
 - Y. Toi and T. Kawai: "Discrete Limit Analysis on the Inelastic Stability of Thin-Walled Structures", Proc. of the International Conference on Education, Practice and Promotion of Computational Methods Using Small Computers, Vol.3, Macao, 1985.
 - T. Kawai, Y. Toi and K. Yuge: "Inelastic Buckling Simulation of Some Steel Structural Members", ibid., 1985.
 - T. Kawai, Y. Toi and N. Suzuki: "Discrete Limit Analysis on the Crushing Strength of Thin-Walled Structures", ibid., 1985.
- * T. Kawai, Y. Toi and N. Suzuki: "Numerical Simulations on the Crushing Behaviors of Structural Members", J. of the Soc. of Naval Archit. of Japan, Vol.158, 1985.
- * K. Takanashi: "Test Method for Simulating Seismic Behaviors of Steel Structures ---- Feasibility and Validity of Computer-Actuator On-line System", Quarterly Column, No.98, Nippon Steel Co., October 1985.
- * H. Takemoto, M. Ichinose, N. Adachi and K. Takanashi: "Experimental Study to Determine Vibration Effect on Rack Type Warehouse Structure (A Study Utilizing Full Scale Model Vibration Test)", Summaries of Technical Papers of Annual Meeting AIJ 1985, Structures I, October 1985.
- * K. Takanashi, K. Ohi, H. Kondo, Gao Xiaohang, Y. Sakai and T. Aoyagi: "Shaking Table Tests on an Industrial Steel Frame Model (Part I Test Results, Part II Comparison of Analysis and Test)", Summaries of Technical Papers of Annual Meeting AIJ 1985, Structures II, October 1985.
- * K. Takanashi, K. Ohi, Y. Shimawaki and K. Inuzuka: "Structural Response with Concrete Footing Vibration", Summaries of Technical Papers of Annual Meeting AIJ 1985, Structures I, October 1985.
 - J. Farjoodi, N. Sato and T. Katayama: "Engineering Properties of Ground Motion Obtained from Dense Seismograph Array Data (Part I)", Bulletin of ERS, No.18, March 1985.

- T. Katayama: "Economic Issues in Urban Earthquake Policy and Planning An Earthquake Engineer's View", Proceedings U.S.-Japan Workshop on Urban Earthquake Hazards Reduction, 85-03, July 1985.
- * N. Sato, J. Farjoodi and T. Katayama: "Observation of Seismic-Induced Ground Strain", The 13th Symposium on Ground Vibrations (1985), The Studies and Applying Methods on The Observation of Earthquake Motions, July 1985.
- * Y. Tomatsu and T. Katayama: "An Online-Graphic System for Earthquake Risk Analysis ERISA-G Its Development and Functions", Proceedings of JSCE, No.362, October 1985.
 - Y. N. Zhou and T. Katayama: "Effects of Magnitude, Epicentral Distance and Site Conditions on The Duration of Strong Ground Motion", SEISAN-KENKYU, Vol.37, No.12, December 1985.
- * Y. Hangai and K. Harada: "Buckling Loads of Single-Layer Space Frame", Proc. of the 9th Symposium on Computational Methods in Structural Enginering and Related Fields, JSSC, July 1985.
- * H. S. Choi, T. Tanami and Y. Hangai: "Failure Test of Cylindrical Tanks under the Transverse Load", Proc. of the 9th Symposium on Computational Methods in Structural Engineering and Related Fields, JSSC, July 1985.
 - Y. Hangai and Y. Tsuboi: "Buckling Loads of Reticulated Single-Layer Space Frames", International Congress-Theory and Experimental Investigation of Spatial Structures, September 1985.
- * H. Tanaka and Y. Hangai: "Buckling Points of Structures under Combined Loads", Proc. of the Annual Convention of AIJ, October 1985.
- * H. Tanaka and Y. Hangai: "Rigid Body Displacement and Stabilization Condition of Unstable Truss Structures", Journal of Structural and Construction Engineering, Trans. of AIJ, No.356, October 1985.
- * Y. Hangai: "Geometrically Nonlinear Problems", JSSC, Vol.21, No.229, November 1985.
 - F. Tatsuoka and O. Haibara: "Shear Resistance between Sand and Smooth or Lubricated Surfaces", Soils and Foundations, Jour. of JSSMFE, Vol.25, No.1, 1985.
 - F. Tatsuoka: "On the Angle of Interface Friction for Cohesionless Soils", Soils and Foundations, Jour. of JSSMFE, Vol.25, No.4, 1985.