

LIST OF PAPERS BY THE MEMBERS OF
EARTHQUAKE RESISTANT STRUCTURE RESEARCH CENTER

(Jan. ~ Dec., 1978).

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

WCEE: The World Conference on Earthquake Engineering

* : Written in Japanese

* C. Tamura and H. Kawakami: "A Method for Evaluating the Effect
of Earthquakes on a Lifeline Network System", SEISAN-KENKYU,
Vol. 30, No. 7, July, 1978

* C. Tamura: "On Measuring Method of Direction of Principal
Stress in Model Made by Gelatin Using Dynamic Photo-elastic
Method", Annual Meeting of JSCE, Sept., 1978

* T. Tamura and K. Kato: "Earthquake Observation on Tunnels",
Annual Meeting of JSCE, Sept., 1978

* C. Tamura and Y. Nakamura: "Drop-weight Tests in Tunnel and
its Simulations by Numerical Analysis", Annual Meeting of
JSCE, Sept., 1978

* C. Tamura: "Earthquake Resistance and Earthquake Damages of
Structures due to Severe Earthquakes", Special Report, Annual
Meeting of JSCE, Sept., 1978

* C. Tamura and K. Tsuji: "Deformation of Cross-section of
Tunnels in the Soft Ground during Earthquake", Annual Meeting
of JSCE, Sept., 1978

* C. Tamura, S. Okamoto and K. Kato: "Earthquake Observations
on Tunnels in the Soft Ground", Proc. of 5th Japan Earthquake
Engineering Symposium-1978, Nov., 1978

- * M. Seki and T. Okada: "Non-linear Earthquake Response of Reinforced Concrete Frames-Simulation by Equivalent Damping Model-", Proc. Annual Convention of AIJ, Sept., 1978
- * Y. Park, M. Seki and T. Okada: "Earthquake Response of Reinforced Concrete Building Frames to Bi-directional Ground Motion - No. 4, Simulation by Computer-Actuator On-line System-", Proc. Annual Convention of AIJ, Sept., 1978
- * T. Okada and M. Seki: "Damage of Reinforced Concrete Buildings Due to 1978 Miyagi-ken-Oki Earthquake", SEISAN-KENKYU, Vo. 30, No. 11, Nov., 1978
- * T. Kawai and Y. Toi: "A New Discrete Analysis on Dynamic Collapse of Structures", Journal of the Society of Naval Architects of Japan, Vol. 143, May, 1978, pp 275-281
- * T. Kawai: "A New Discrete Analysis of Continuum Mechanics Problems Based on the Physical Models", Course No. 39 Text of the Seiken Seminar held in Oct., 1978
- * T. Kawai: "A New Discrete Model and Its Application to the Problems of Rock Mechanics, Part 1, Part 2, (1). Fundamental Theory, (2). Analytical Example of Plane Strain Problem", Preprints of the Symposium on the Western District of Japan held at Kumamoto, Nov. 25 and 26, 1978
- H. Shibata: "Proving Test of Earthquake-Resistant Pippings, Equipment and Active Components", Nuclear Eng'g. and Design Vo. 46, No. 1, March, 1978, p. 169
- * H. Shibata and H. Okamura ed., "Report of Research Committee on Evaluation Damage Rate of Equipment and Pippings of Nuclear Power Plants under Earthquake Conditions", March, 1978
- H. Shibata, "Strong Motion Recorder Network and Anti-earthquake Design of Industrial Facilities", Paper for International Strong Motion Array Workshop (Honolulu), May, 1978
- H. Shibata and K. Sogabe, "Design Criteria for Oil and Liquified Gas Storages", Proc. of 6 European Conf. on Earthquake Engineering, Sept., 1978, p. 509
- H. Shibata, "On the Reliability of Response Analysis for Structural Design Including Pippings and Equipment", App. of Concluding Report of the Seminar on Probabilistic Seismic Analysis of Nuclear Power Plants (Berlin, BAM), ISSN 0170-4931, Sept., 1978, p. 109

- * H. Shibata: "Damage on Industrial Facilities by Miyagiken-oki Earthquake-1978", SEISAN-KENKYU -Section 5.1-, Vol. 30, No. 11, Nov., 1978, p. 420

- H. Shibata, T. Shigeta and A. Sone: "On Ground Motion Records for Engineering Purpose Other Than Horizontal Ground Motion Record", Proc., of 5th Japan National Symp. on Earthquake Engineering, Nov., 1978, p. 185

- H. Shibata: "A Report on the Miyagiken-oki, Japan, Earthquake of June 12, 1978 -Part IV-", Proc. of 2nd Int. Conf. on Microzonation, Nov., 1978, p. 612

- H. Shibata, T. Shigeta and A. Sone: "Seismic Response and Reliability of Mechanical Systems-Effects of Uncertainty of Ground Motions", Proc. of the U.S.-Southeast Asia Symp. on Eng'g for Natural Hazard Protection, (Manila, 1978), Dec., 1978, p. 133

- H. Sato, M. Komazaki and M. Ohori: "An Extensive Study of a Simple Method Estimating the Response Spectrum Based of a Simulated Spectrum", Nuclear Engineering and Design, 50, 1978, 399

- * H. Sato: "A Study on Estimating the Response Spectrum in Terms of the Plural Ground Predominant Periods", Proc., of the 5th Japan Earthquake Engineering Symposium-1978, No., 1978

- * T. Fujita and S. Hattori: "Impact Characteristics of a Nonlinear System with Collision under Random Excitation", Prep. JSME, No. 780-14, Oct., 1978

- * T. Fujita and S. Hattori: "Impact Characteristics of a Nonlinear System with Collision under Nostationary Random Excitation", Prep. JSME, No. 780-14, Oct., 1978

- * T. Fujita: "Probabilistic Analysis of Response for Nonlinear Systems under Nostationary Random Excitation", Proc. of the 5th Japan Earthquake Engineering Symposium-1978, Oct., 1978

- * T. Fujita and H. Shimosaka: "Probabilistic Analysis of Nonlinear Seismic Response for Liquid Storage Tank-Supporting Leg Systems", Proc. of the 5th Japan Earthquake Engineering Symposium-1978, Oct., 1978

- * H. Tanaka, K. Takanashi, K. Udagawa and H. Konno: "Earthquake Response Analysis of a 1-Bay 2-Story Steel Frame by Computer-Actuator On-line System", SEISAN-KENKYU, Vol. 30, No. 4, 1978

- * K. Udagawa, K. Takanashi and H. Tanaka: "Non-Linear Earthquake Response Analysis of Structures by a Computer-Actuator On-Line System Part - II Response Analysis of One Bay-One Story Steel Frames with Inelastic Beams", Trans. of the AIJ, June, No. 268, 1978
- * Hong Gi and H. Tanaka: "Hysteretic Energy Dissipation of Single-Degree-of-Freedom System Subjected to White Noise Excitation", Trans. of the AIJ, Aug., No. 270, 1978
- * Hong Gi and H. Tanaka: "Dissipation Energy of Single Degree of Freedom Subjected to White Noise Excitation", Proc. Annual Convention of AIJ, Sept., 1978
- * K. Takanashi, H. Tanaka, H. Taniguchi, H. Sakaguchi and A. Tanaka: "Earthquake Response Analysis of Frames with Bolted Joint", Proc. Annual Convention of AIJ, Sept., 1978
- * K. Takanashi, A. Tanaka, H. Tanaka and H. Sakaguchi: "Elastic-Plastic Behavior of High-Strength Bolted Beam Connections", Proc. Annual Convention of AIJ, Sept., 1978
- * K. Udagawa, K. Takanashi and H. Tanaka: "Strength Deterioration of Steel Beam under Earthquake Excitation", Proc. Annual Convention of AIJ, Sept., 1978
- * T. Shigenobu, K. Takanashi and H. Tanaka: "Earthquake Response of 2-Story Braced Frames", Proc. Annual Convention of AIJ, Sept., 1978
- * K. Takanashi, H. Konno, H. Tanaka and K. Udagawa: "Earthquake Response Analysis of a 1-bay 2-story Steel Frames by Computer-Actuator On-Line System", Proc. Annual Convention of AIJ, Sept., 1978
- K. Takanashi, K. Udagawa and H. Tanaka: "Earthquake Response Analysis of Steel Frames by Computer-Actuator On-Line System", Proc. of the 5th Japan Earthquake Engineering Symposium-1978, Nov., 1978
- H. Tanaka, Y. Hangai, J. Kunita and M. Homma: "Finite Element Analysis of Contact Problems with Unknown Boundary Regions", Proc. of the 24th Structural Engineering Symposium, Feb., 1978
- * M. Yoneda and Y. Hangai: "Static Behaviors of Cantilever Cylindrical Shells with a Rectangular Opening", Pre-Print of Kanto Meeting of AIJ, July, 1978

- * H. Goto and Y. Hangai: "Comparison of Approximate Methods of Nonlinear Equation of Motion", Pre-Print of the Kanto Meeting of AIJ, July, 1978
 - * Y. Tsuboi, Y. Hangai, M. Takeda and M. Homma: "Analysis of Walled Structures Considering Up-Lift of Foundation", Proc. of Annual Convention of AIJ, Sept., 1978
 - * J. Kunita and Y. Hangai: "Analysis of the Elastic Contact Problem with Unknown Boundary Region", Proc. Annual Convention of AIJ, Sept., 1978
 - * H. Goto and Y. Hangai: "Nonlinear Analysis of the Elastic Body under Non-conservative Force", Proc. of the Annual Convention of AIJ, Sept., 1978
 - * Y. Hangai, M. Yoneda, N. Matsui and H. Murayama: "Oscillation of Cantilever Cylindrical Shells with a Rectangular Opening", Proc. of the 5th Japan Earthquake Engineering Symposium-1978, Nov., 1978
 - * Y. Tsuboi, Y. Hangai, M. Takeda and M. Homma: "A Simple Analytical Method of Walled Structures Considering Up-Lift of Foundation", Proc. of the 5th Japan Earthquake Engineering Symposium-1978, Nov., 1978
 - * Y. Hangai, N. Matsui and H. Murayama: "Vibration Behaviors of Cantilever Perforated Cylindrical Shells", Proc. of the 28th Japan National Congress of Theoretical and Applied Mechanics, Nov., 1978
 - * Y. Hangai and M. Homma: "Up-Lift of Foundation of Walled Structures under Earthquake Excitation", Proc. of the 28th Japan National Congress of Theoretical and Applied Mechanics, Nov., 1978
 - * H. Goto and Y. Hangai: "Nonlinear Oscillation of Elastic Bodies due to Nonconservative Force", Proc. of the 28th Japan National Congress of Theoretical and Applied Mechanics, Nov., 1978
- T. Iwasaki, F. Tatsuoka and Y. Takagi: "Shear Moduli of Sands under Cyclic Torsional Shear Loading", Soils and Foundations, Vol. 18, No. 1, 1978
- F. Tatsuoka, T. Iwasaki and Y. Takagi: "Hysteretic Damping of Sands under Cyclic Loading and Its Relation to Shear Modulus", Soils and Foundations, Vol. 18, No. 2, 1978

- F. Tatsuoka, et al: "A Method for Estimating Undrained Cyclic Strength of Sandy Soils Using Standard Penetration Resistances", Soils and Foundations, Vol. 18, No. 3, 1978
- F. Tatsuoka: "Stress-Strain Behavior of An Idealized Granular Material by a Simple Elasto-Plastic Theory", Proc. of the U.S.-Japan Seminar on Continuum-Mechanical and Statistical Approaches in the Mechanics of Granular Material, p. 301-320, Gakujutsu Bunken Fukyukai, Tokyo, Japan, 1978
- T. Iwasaki, F. Tatsuoka, K. Tokida and S. Yasuda: "A Practical Method for Assessing Soil Liquefaction Potential Based on Case Studies at Various Sites in Japan", Proc. of the Second International Conference on Microzonation for Safer Construction-Research and Application, Vol. II, 1978
- F. Tatsuoka, K. Tokida, S. Yoshida and I. Maruyama: "Shake Table Tests on Dynamic Behaviors of Pile Foundation Model in Liquefying Sand Layers" Proc. of the 5th Japan Earthquake Engineering Symposium-1978, Nov., 1978
- * T. Katayama, T. Iwasaki and M. Saeki: "Statistical Analysis of Earthquake Acceleration Response Spectra", Proc. JSCE, No. 275, July, 1978
- T. Katayama: "Engineering Prediction of Acceleration Response Spectra and Its Application to Seismic Risk Analysis", Proc. of the Fifth Japan Earthquake Engineering Symposium - 1978, Nov., 1978
- * R. Isoyama, T. Yoshida and T. Katayama: "Quantitative Analysis of Near-Field Earthquake Ground Motions", Proc. of the Fifth Japan Earthquake Engineering Symposium - 1978, Nov., 1978
- T. Iwasaki, T. Katayama, K. Kawashima and M. Saeki: "Statistical Analysis of Strong-Motion Acceleration Records Obtained in Japan", Proc. of the Second International Conference on Microzonation for Safer Construction Research and Application, Nov., 1978
- T. Katayama: "Damage to Lifeline Utility Systems (A)", Part III of "A Report on the Miyagiken-Okii, Japan, Earthquake of June 12, 1978", Proc. of the Second International Conference on Microzonation for Safer Construction Research and Application, Nov., 1978
- * K. Kubo: "Miyagi-ken-oki Earthquake of June 12, 1978 --Preliminary Report", SEISAN-KENKYU, Vol. 30, No. 11, Nov., 1978

T. Harada and K. Kubo: "Dynamic (Complex) Stiffness and Vibration of Embedded Cylindrical Rigid Foundation", Proc. of the Fifth Japan Earthquake Engineering Symposium - 1978, Nov., 1978

* K. Kubo and T. Katayama: "Damage to Highway Bridges" and "Damage to Buried Pipelines" in "The Report on the Seismic Damage Assessment in the Metropolitan Area of Tokyo", Tokyo Metropolitan Government, June, 1978