# APOSTOLOS S. PAPAGEORGIOU Resumé

#### **PRESENT POSITION**

#### Professor

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#### **EDUCATION**

B.Sc.	Civil Engineering	(Structural Engineering)	M.I.T. 1976
M.Sc.	Civil Engineering	(Structural Engineering)	M.I.T. 1978
M.Sc.	Mechanical Engineering	(Engineering Mechanics)	M.I.T. 1978
Ph.D.	Civil Engineering	(Earthquake Engineering and	
		Engineering Seismology)	M.I.T. 1981

#### ACADEMIC/PROFESSIONAL HISTORY

Department of Civil Engineering, University of Patras
(September 2004 – present)
Department of Civil, Structural, and Environmental
Engineering, University at Buffalo
(January 1999 - August 2004)
Department of Civil Engineering,
Rensselaer Polytechnic Institute
(Spring 1990 - December 1998)
Department of Civil Engineering,
Rensselaer Polytechnic Institute
(September 1983 - Spring 1990)
Corps of Engineers, Greek Army (Mandatory Military Service)
(October 1981 - August 1983)
Department of Civil Engineering, M.I.T.
(September 1976 - February 1981)

#### HONORARY APPOINTMENT

Adjunct Professor	Department of Civil Engineering
	University of Iceland, Reykjavik, Iceland
	(May 2009 – present)

#### HONORS AND AWARDS

The **'Richard Lee Russel' Award** of 1976, of the Department of Civil Engineering, M.I.T., "*in recognition of distinguished academic achievements*".

### **GOVERNMENT COMMITTEES AND SERVICE**

- Reviewer of the research conducted by the Lawrence Livermore National Laboratory (LLNL) and the Electric Power Research Institute (EPRI) on the 'Seismic Hazard Characterization of the Eastern United States'. Review requested by the Panel of Seismic Hazard Analysis of the Committee on Seismology, **National Research Council, National Academy of Sciences** (1985).
- Member of the **Technical Advisory Board** of the **Nevada Testing Institute (NeTI)** (1996-1998).
- Member of the **Dynamics Committee** of the **Engineering Mechanics Division** of the **American Society of Civil Engineers (ASCE)** (1991-present); Member of Control Group (1996-present); <u>Vice Chairman</u> (1997-2000).
- Member of the **Editorial Board** of the **Journal of Engineering Mechanics**, **American Society of Civil Engineers (ASCE)** (1997-2000).
- Member of the Seismic Effects Committee of the Structures Division of the American Society of Civil Engineers (ASCE) (1988-1993).
- Member, for three consecutive years, of a review panel for research awards granted by U.S. Geological Survey for the National Earthquake Hazards Reduction Program (NEHRP) (1990 Golden, CO; 1991 Seattle, WA; 1992 San Diego, CA).
- Member of a review panel for research awards granted by the **National Science Foundation** for the **National Earthquake Hazards Reduction Program (NEHRP)** (1996, Washington, DC).
- Reviewer for Earthquake Hazards related Projects under consideration for funding by the **Alaska Science and Technology Foundation** (1991).
- Reviewer of Abstracts submitted to the **11th World Conference on Earthquake Engineering (WCEE)** on behalf of the Organizing Committee (1996).
- Member of review panel invited by the **Greek Ministry of Industry, Energy, and Technology, General Secretariat for Research and Technology** (August, 1987; Athens, Greece).
- Reviewer for **EIIET II** proposals submitted to the **Greek Ministry of Industry, Energy and Technology, General Secretariat for Research and Technology, International Cooperation Directorate** (May, 1994).
- Reviewer, for three consecutive times over the period 1991-1993, of proposals submitted to the **Organization for Earthquake Hazards Protection (Ο.Α.Σ.Π.)**, Athens, Greece.
- Member of the Strong Motion Instrumentation Committee of the Earthquake Engineering Research Institute (EERI) (1986).
- Member of the **Technical Advisory Committee (TAC)** of the **State Emergency Management Office (SEMO)** of the State of New York (1987-1988).
- Foreign Member of the Korean Earthquake Engineering Research Center (KEERC) (1997-2004).
- Reviewer of proposals for **'Post Graduate Curriculum Programs' (ETIEAEK I)** in the Greek Institutions of Higher Education (AEI) submitted to the **Greek Ministry of National Education and Religious Affairs**, Directorate of Community (European Community) Support Framework (June 1997).
- Member of the **Board of Associate Editors**, International Series on Advances in Earthquake Engineering, **Computational Mechanics Publications**.
- MCEER Representative to the USGS Interim National Committee of an Advanced National Seismic System (ANSS).
- Member of the **Geosciences Review Panel** for the **U.S. Civilian Research & Development Foundation (CRDF)** (October 2001).
- Reviewer of proposals for **'Post Graduate Curriculum Programs' (EFIEAEK II)** in the Greek Institutions of Higher Education (AEI) submitted to the **Greek Ministry of National Education and Religious Affairs**, Directorate of Community (European Community) Support Framework (December 2001 & June 2002).
- Topic Coordinator for the Seventh U.S. National Conference on Earthquake Engineering (July 21-25, 2002; Boston, MA).

- Reviewer of proposals for 'Program for the Enhancement of Human Resources Related to Research' (ΠΕΝΕΔ) submitted to the General Secretariat for Research and Technology, Greek Ministry of Development (March 2005).
- Member of the **Editorial Board** of the **Journal 'Earthquake Engineering and Engineering Vibration'** published by the **Institute of Engineering of Mechanics (IEM)**, China Seismological Bureau (2002-2007).
- Member of the Permanent Scientific Committee on Seismotectonics, of the Organization for Earthquake Hazards Protection (Ο.Α.Σ.Π.), Athens, Greece (April 2006 - present).
- Member of the Permanent Scientific Committee on Earthquake Engineering and Engineering Seismology, of the Organization for Earthquake Hazards Protection (O.A.Σ.Π.), Athens, Greece (April 2006 - present).
- Member of the **Permanent Scientific Committee on Seismic Risk and Seismic Hazard Assessment**, of the **Organization for Earthquake Hazards Protection (Ο.Α.Σ.Π.)**, Athens, Greece (April 2006 - present).

### **CONSULTING/SPECIAL PROJECTS**

- **Messina Straits Bridge, Sicily, Italy** In-depth Studies: <u>Engineering Seismology</u> <u>Consultant</u> (September 2000).
- Official visit to Japan on a **Japanese Government Research Award for Foreign Specialists** (February 20 March 4, 2000).
- **Rehabilitation of the Williamsburg Bridge**, New York, NY: <u>Engineering Seismology</u> <u>Consultant</u> (April 1998).
- Official guest of the **Department of Civil Engineering**, **Seoul National University**, **Korea** (May 17-25, 1996).
- Member of a research team in charge of the **Seismic Microzonation of the Greater Anchorage Area** (1991-1996)
- Visiting Scholar, **Department of Civil Engineering**, **University of Texas at Austin**, Austin, Texas (Spring semester 1993; sabbatical).
- LNG Tanks, Revithoussa, Greece: <u>Engineering Seismology Consultant</u> (September 1992).
- Official visit to the **Universidad Nacional Autonoma de Mexico (UNAM)** on behalf of the **NCEER/SEAOC** (National Center of Earthquake Engineering Research and the Structural Engineers Association of California) **Committee on Site Effects** (August, 1992).
- <u>Engineering Seismology Consultant</u>, **NCEER Lifelines Group Meeting**, San Francisco, California (November 15-16, 1991).
- Representative of the National Center for Earthquake Engineering Research (NCEER) during an **official visit to United Kingdom** (University of Bristol, Cambridge University, Imperial College), June 15-20, 1991.
- <u>Engineering Seismology Consultant</u>, **National Center for Earthquake Engineering Research (NCEER)**, SUNY at Buffalo, Buffalo, New York (Spring 1989).
- Visiting Researcher, **Department of Civil Engineering & Operations Research**, **Princeton University**, **Princeton**, New Jersey (Summer 1988).

### **INVITED LECTURES**

- Seoul National University, Korea.
- Korean Institute of Geology, Mining & Minerals Geological Hazards Research Center, Korea.
- Disaster Prevention Research Institute (DPRI), Kyoto University, Japan.
- Department of Geophysics, Graduate School of Science, Tohoku University, Japan.
- United States Military Academy, West Point.
- State University of New York, University at Buffalo.
- The University of Texas at Austin.
- University of Notre Dame.
- Cornell University.
- University of Nevada at Reno.
- Institute of Engineering Seismology and Earthquake Engineering (ΙΤΣΑΚ), Thessaloniki, Greece.
- ROSE School The Center for Post-Graduate Training and Research in Earthquake Engineering and Engineering Seismology
- Organizer of six (6) sessions of ASCE Congresses (1992-1996) and co-organizer of an NCEER sponsored workshop (1991).

### **PROFESSIONAL SOCIETIES**

- American Society of Civil Engineers, member (1978)
- Seismological Society of America, member (1979)
- American Geophysical Union, member (1979)
- Technical Chamber of Greece, member (1981)
- Earthquake Engineering Research Institute, member (1983)
- International Association for Structural Safety and Reliability, member (1988)

#### HONORARY SOCIETIES

- Sigma Chi  $(\Sigma X)$
- Tau Beta Pi (ТВП)
- Chi Epsilon (XE)

### **PUBLICATIONS**

#### **<u>Refereed Scientific Journals</u>:**

- Papageorgiou, A.S. and K. Aki, (1982). "Aspects of the Mechanics of Earthquake Rupture Related to the Generation of High Frequency Waves and the Prediction of Strong Ground Motion", *Soil Dynamics and Earthquake Engineering*, Vol. 1, No. 2, 67-74.
- Papageorgiou, A.S. and K. Aki (1983). "A Specific Barrier Model for the Quantitative Description of Inhomogeneous Faulting and the Prediction of Strong Ground Motion. Part I: Description of the Model", *Bulletin of the Seismological Society of America*, Vol. 73, No. 3, 693-722.
- Papageorgiou, A.S. and K. Aki (1983). "A Specific Barrier Model for the Quantitative Description of Inhomogeneous Faulting and the Prediction of Strong Ground Motion. Part II: Applications of the Model", <u>Bulletin of the Seismological Society of America</u>, Vol. 73, No. 4, 953-978.
- 4. **Papageorgiou**, **A.S.** and K. Aki (1985). "Scaling Law of Far-Field Spectra Based on Observed Parameters of the Specific Barrier Model", *Pure and Applied Geophysics*, Vol. **123**, No. **3**, 353-374.
- Papageorgiou, A.S. (1988). "On Two Characteristic Frequencies of Acceleration Spectra: Patch Corner Frequency and f<sub>max</sub>", <u>Bulletin of the Seismological Society of America</u>, Vol. 78, No. 2, 509-529.
- Lin, B.C., I.G. Tadjbakhsh, A.S. Papageorgiou and G. Ahmadi (1989). "Response of Base-Isolated Buildings to Random Excitations Described by the Clough-Penzien Spectral Model", *Earthquake Engineering and Structural Dynamics*, Vol. 18, pp. 49-62.
- Lin, B.C. and A.S. Papageorgiou (1989). "Demonstration of Torsional Coupling Caused by Closely Spaced Periods: 1984 Morgan Hill Earthquake, Response of the Santa Clara County Building", <u>Earthquake Spectra</u>, Vol. 5, No. 3, pp. 539-556.
- Papageorgiou, A.S. and B.C. Lin (1989). "Influence of Lateral-Load-Resisting System on the Earthquake Response of Structures - A System Identification Study", <u>Earthquake</u> <u>Engineering and Structural Dynamics</u>, Vol. 18, pp. 799-814.
- Papageorgiou, A.S. and B.C. Lin (1989). "Study of the Earthquake Response of the Base-Isolated Law and Justice Center in Rancho Cucamonga", <u>Earthquake Engineering</u> <u>and Structural Dynamics</u>, Vol. 18, pp. 1189-1200.
- Lin, B.C., I.G. Tadjbakhsh, A.S. Papageorgiou and G. Ahmadi (1990). "Performance of Earthquake Isolation Systems", *Journal of Engineering Mechanics*, ASCE, Vol. 116, No. 2, pp. 446-461.
- 11. **Papageorgiou, A.S.** and M.C. Constantinou (1990). "Response of Sliding Structures with Restoring Force to Stochastic Excitation", *Probabilistic Engineering Mechanics*, Vol. 5, No. 1, pp. 19-26.
- 12. Constantinou, M.C. and A.S. Papageorgiou (1990). "Stochastic Response of Practical Sliding Isolation Systems", *Probabilistic Engineering Mechanics*, Vol. 5, No. 1, pp. 27-34.
- Papageorgiou, A.S. and N.S. Papageorgiou (1990). "Necessary and Sufficient Conditions for Optimality in Nonlinear Distributed Parameter Systems with Variable Initial State", <u>Journal of</u> <u>the Mathematical Society of Japan</u>, Vol. 42, No. 3, pp. 387-396.
- 14. Papageorgiou, N.S. and A.S. Papageorgiou (1992). "Minimization of Nonsmooth Integral Functionals", *International Journal of Mathematics and Mathematical Sciences*, Vol. 15, No. 4, pp. 673-680.
- Papageorgiou, A.S. and B.-C. Lin (1990). "Analysis of Recorded Earthquake Response and Identification of a Multi-Story Structure Accounting for Foundation Interaction Effects", <u>Soil</u> <u>Dynamics and Earthquake Engineering</u>, Vol. 9, pp. 55-64.
- Gazetas, G., P. Dakoulas and A.S. Papageorgiou (1990). "Local-Soil and Source-Mechanism Effects in the 1986 Kalamata (Greece) Earthquake", <u>Earthquake Engineering and</u> <u>Structural Dynamics</u>, Vol. 19, pp. 431-456.
- Deodatis, G., M. Shinozuka and A.S. Papageorgiou (1990). "Stochastic Wave Representation of Seismic Ground Motion. I. F-K Spectra," *Journal of Engineering Mechanics*, ASCE, Vol. 116, No. 11, pp. 2363-2379.

- Deodatis, G., M. Shinozuka and A.S. Papageorgiou (1990). "Stochastic Wave Representation of Seismic Ground Motion. II. Simulation", *Journal of Engineering Mechanics*, ASCE, Vol. 116, No. 11, pp. 2381-2399.
- Papageorgiou, A.S. and B.-C. Lin (1991). "Earthquake Response of Two Repaired Buildings Damaged in Past Seismic Shaking", *Soil Dynamics and Earthquake Engineering*, Vol. 10, No. 5, pp. 236-248.
- Papageorgiou, A.S. and J. Kim (1991). "Study of the Propagation and Amplification of Seismic Waves in Caracas Valley with Reference to the July 29, 1967 Earthquake Response: SH-Waves", <u>Bulletin of the Seismological Society of America</u>, Vol. 81, No. 6, pp. 2214-2233.
- Papageorgiou, A.S. and J. Kim (1993). "Propagation and Amplification of Seismic Waves in 2D Valleys Excited by Obliquely Incident P- and SV-Waves", <u>Earthquake Engineering and</u> <u>Structural Dynamics</u>, Vol. 22, pp. 167-182.
- 22. Kim, J. and **A.S. Papageorgiou** (1993). "The Discrete Wavenumber Boundary Element Method for 3-D Scattering Problems", *Journal of Engineering Mechanics*, ASCE, Vol. 119, No. 3, pp. 603-624.
- 23. Pei, D. and A.S. Papageorgiou (1996). "Locally Generated Surface Waves in Santa Clara Valley: Analysis of Observations and Numerical Simulation", *Earthquake Engineering and Structural Dynamics*, Vol. 25, pp. 47-63.
- 24. Zhang, B., and **A.S. Papageorgiou** (1996). "Simulation of the Response of the Marina District Basin, San Francisco, California, to the 1989 Loma Prieta Earthquake", <u>Bulletin of the</u> <u>Seismological Society of America</u>, Vol. **86**, No. **5**, pp. 1382-1400.
- Nath, S.K., D. Chatterjee, N.N. Biswas, M. Dravinski, D.A. Cole, A.S. Papageorgiou, J.A. Rodriguez, and C.J. Poran (1997). "Correlation Study of Shear Wave Velocity in Near Surface Geological Formations in Anchorage, Alaska", *Earthquake Spectra*, Vol. 13, No. 1, pp. 55-75.
- 26. Zhang, B., A.S. Papageorgiou, and J. L. Tassoulas (1998). "A Hybrid Numerical Technique, Combining the Finite Element and Boundary Element Methods, for Modelling 2.5-D Elastodynamic Scattering Problems", *Bulletin of the Seismological Society of America*, Vol. 88, No. 4, pp. 1036-1050.
- 27. **Papageorgiou**, A.S., and D. Pei (1998). "A Discrete Wavenumber Boundary Element Method for Study of the 3-D Response of 2-D Scatterers", *Earthquake Engineering and Structural Dynamics*, 27, pp. 619-638.
- 28. Shinozuka, M., G. Deodatis, R. Zhang, and A.S. Papageorgiou (1999). "Modeling, Synthetics and Engineering Applications of Strong Earthquake Wave Motion", *Soil Dynamics and Earthquake Engineering*, Vol. 18, No. 3, pp. 209-228.
- 29. Dutta, U., N.N.Biswas, A. Matrirosyan, S. Nath, M. Dravinski, A.S. Papageorgiou, and R. Combellick (2000). "Delineation of Spatial Variation of Shear Wave Velocity with High Frequency Rayleigh Waves in Anchorage, Alaska", <u>Geophysical Journal International</u>, Vol. 143, No. 2, pp. 365-375.
- 30. Dutta, U., A. Matrirosyan, N.N.Biswas, A.S. Papageorgiou, M. Dravinski, and R. Combellick (2001). "Estimation of S-Wave Site Response in Anchorage, Alaska from Weak Motion Data Using Generalized Inversion Method", *Bulletin of the Seismological Society of America*, Vol. 91, No. 2, pp. 335-346.
- 31. Martirosyan, A., U. Dutta, N.N. Biswas, **A.S. Papageorgiou**, and R. Combellick (2002). "Determination of Site Response in Anchorage, Alaska, on the Basis of Spectral Ratio Methods", *Earthquake Spectra*, Vol. **18**, No. **1**, pp. 85-104.
- 32. Nath, S.K., N.N. Biswas, M. Dravinski, and A.S. Papageorgiou (2002). "Determination of S-wave Site Response in Anchorage, Alaska in the 1-9 Hz Frequency Band", <u>Pure and Applied</u> <u>Geophysics</u>, Vol. 159, No. 11/12, pp. 2673-2698.
- 33. Halldorsson, B., G. Dong, A.S. Papageorgiou (2002). "Earthquake Motion Input and its Dissemination Via the Internet", *Earthquake Engineering and Engineering Vibration*, Vol. 1, No. 1, pp. 20-26.
- 34. Dong, G. and A.S. Papageorgiou (2002a). "Seismic Radiation from a Unidirectional Asymmetrical Circular Crack Model – Part (I): Constant Rupture Velocity", <u>Bulletin of the</u> <u>Seismological Society of America</u>, Vol. 92, No.3, pp. 945-961.
- 35. Dong, G. and A.S. Papageorgiou (2002b). "Seismic Radiation from a Unidirectional Asymmetrical Circular Crack Model Part (II): Variable Rupture Velocity", <u>Bulletin of the</u> <u>Seismological Society of America</u>, Vol. 92, No.3, pp. 962-982.

- 36. Dong, G. and **A.S. Papageorgiou** (2003). "On a New Class of Kinematic Models: Symmetrical and Asymmetrical Circular and Elliptical Cracks", *Physics of Earth and Planetary Interiors*, Vol.137, pp. 129-151.
- 37. Dutta, U., N.N. Biswas, A. Matrirosyan, A.S. Papageorgiou, and S. Kinoshita (2003). "Estimation of Earthquake Source Parameters and Site Response in Anchorage, Alaska from Strong Motion Network Data Using Generalized Inversion Method", <u>Physics of Earth and</u> <u>Planetary Interiors</u>, Vol.137, pp. 13-29.
- 38. Papageorgiou, A.S. (2003). "The Barrier Model and Strong Ground Motion", <u>Pure and</u> <u>Applied Geophysics</u>, Vol. 160, No. 3/4, pp.603-634.
- Mavroeidis, G.P. and A.S. Papageorgiou (2003). "A Mathematical Representation of Near-Fault Ground Motions", <u>Bulletin of the Seismological Society of America</u>, Vol. 93, No.3, pp. 1099-1131.
- 40. Martirosyan, A., N.N. Biswas, U. Dutta, D. Cole, and A.S. Papageorgiou (2003). "Ground Motion Analysis in the Anchorage Basin: 1-D Approach", <u>Journal of Earthquake</u> <u>Engineering</u>, Vol. 7, No. 2, pp. 251-274.
- 41. Dutta, U., N.N. Biswas, D. Adams, and **A.S. Papageorgiou** (2004). "Analysis of S-Wave Attenuation in South-Central Alaska", *Bulletin of the Seismological Society of America*, Vol. 94, No.1, pp. 16-28.
- 42. Mavroeidis, G., G. Dong, and A.S. Papageorgiou (2004). "Near-Fault Ground Motions, and the Response of Elastic and Inelastic Single-Degree-of-Freedom (SDOF) Systems", *Earthquake Engineering and Structural Dynamics*, Vol. 33, pp. 1023-1049.
- 43. Halldorsson, B. and A.S. Papageorgiou (2005). "Calibration of the Specific Barrier Model to Earthquakes of Various Tectonic Regions", <u>Bulletin of the Seismological Society of</u> <u>America</u>, Vol. 95, No.4, pp. 1276-1300.
- 44. Mavroeidis, G., B. Zhang, G. Dong, **A.S. Papageorgiou**, U. Dutta and N.N. Biswas (2008). "Estimation of Strong Ground Motion from the Great 1964 Prince William Sound, Alaska, Earthquake (M<sub>w</sub> 9.2)", *Bulletin of the Seismological Society of America*, Vol.98, No.5, pp. 2303–2324.
- 45. Meza Fajardo, K.C. and A.S. Papageorgiou (2008). "A Non-Convolutional Split-Field Perfectly Matched Layer (PML) for Wave Propagation in Isotropic and Anisotropic Elastic Media – Stability Analysis", *Bulletin of the Seismological Society of America*, Vol. 98, No.4, pp. 1811–1836.
- 46. Meza Fajardo, K.C. and A.S. Papageorgiou (2010). "On the Stability of a Non-convolutional Perfectly Matched Layer for Isotropic Elastic Media", <u>Soil Dynamics and Earthquake</u> <u>Engineering</u>, Vol. 30, pp. 68-81.
- 47. Mavroeidis, G. P., and A. S. Papageorgiou (2010). "Effect of fault rupture characteristics on near-fault strong ground motions", <u>Bulletin of the Seismological Society of America</u>, Vol. 100, (in press).
- 48. Halldorsson, B., G. P. Mavroeidis, and A. S. Papageorgiou (2010). "Near-fault and far-field strong ground motion simulation for earthquake engineering applications using the specific barrier model", *Journal of Structural Engineering ASCE*, Vol. 136, (in press).
- 49. Zhang, F. and **A.S. Papageorgiou** (2010). "Site Amplification for Different Site Conditions and Influence of Ground Motion Intensity on Amplification Factors", <u>Bulletin of the</u> <u>Seismological Society of America</u>, (accepted for publication).
- 50. Zhang, F. and **A.S. Papageorgiou** (2010). "Attenuation Characteristics of Taiwan: Estimation of Coda Q, S-wave Q, Scattering Q, Intrinsic Q, and Scattering Coefficient", <u>Seismological</u> <u>Research Letters</u>, (accepted for publication).

### Chapters In Books:

51. **Papageorgiou, A.S.**, "Engineering Seismology", in **Computer Analysis and Design of Earthquake Resistant Structures**, Edited by D.E. Beskos and S.A. Anagnostopoulos, *Computational Mechanics Publications*, September, 1997, 600 pp.

#### **<u>Refereed Proceedings</u>**:

- Papageorgiou, A.S., "Scaling Law of Far-Field Spectra Based on Observed Parameters of the Specific Barrier Model", presented at the 79th Annual Meeting of the Seismological Society of America, May 30-June 1, Anchorage, Alaska, <u>Earthquake Notes</u>, Vol. 55, No. 1, pp. 12. [Presiding over the session entitled "Earthquake Source Parameters"].
- 2. Aki, K. and A.S. Papageorgiou (1988). "Separation of Source and Site Effects in Acceleration Power Spectra of Major California Earthquakes", Proceedings of the Ninth World Conference on Earthquake Engineering, August 2-9 1988, Tokyo-Kyoto, Japan, Vol. VIII, SB-8, pp. 163-167.
- 3. **Papageorgiou, A.S.**, "Seismic Ground Motion of Sedimentary Valleys Example: The Caracas Valley, Caracas, Venezuela", presented at the **84th Annual Meeting of the Seismological Society of America**, April 19-21, **Victoria B.C. Canada**, <u>Seismological Research Letters</u>, Vol. **60**, No. **1**, pp. 8. [Presiding over the session entitled "Strong Ground Motion II"].
- 4. **Papageorgiou, A.S.** and Kim, J. (1989). "Earthquake Induced Differential Motions (Strains) in the Caracas Valley, Caracas, Venezuela", **Earthquake Behavior of Buried Pipelines**, **Storage, Telecommunication, and Transportation Facilities, ASME PVP 162**, pp. 177-182.
- 5. Deodatis, G., M. Shinozuka and **A.S. Papageorgiou** (1990). "Frequency-Wavenumber Spectra From Seismic Sources in a Half-Space", **Fourth U.S. National Conference on Earthquake Engineering**, May 20-24, 1990, U.C. Irvine, Palm Springs, California, Vol. 1, pp. 447-456.
- 6. **Papageorgiou, A.S.** and B.-C. Lin (1990). "Analysis of Recorded Earthquake Response and Identification of a Multi-Story Structure Accounting for Foundation Interaction Effects", **U.S. National Workshop on Structural Control Research**, U.S.C., Los Angeles, California, October 25-26, 1990, pp. 189.
- 7. Papageorgiou, A.S. and J. Kim (1991). "Reassessment of the Intensity of Strong Motions Experienced by the City of Caracas During the 1967 Earthquake", presented at the 86th Annual Meeting of the Seismological Society of America, March 25-27, 1991, San Francisco, California, *Seismological Research Letters*, Vol. 62, No. 1, pp. 17.
- Papageorgiou, A.S. and J. Kim (1991). "Elastic Wave Scattering by a Hemispherical Canyon in an Elastic Half-Space by the Discrete Wavenumber Boundary Element Method", American Geophysical Union (AGU) 1991 Spring Meeting, Baltimore, MD, May 28 - June 1, 1991, Proceedings published in <u>EOS Supplement</u> (April), pp. 199.
- 9. **Papageorgiou**, A.S. and J. Kim (1991). "Oblique Incidence of SV Waves on Sediment-Filled Valleys: Implications for Seismic Zonation", Fourth International Conference on Seismic Zonation, August 26-29, 1991, Stanford, California, Vol. II, pp. 581-588.
- Papageorgiou, A.S. and J. Kim (1991). "Study of the Propagation and Amplification of Seismic Waves in Caracas Valley with Reference to the July 29, 1967 Earthquake Response", First International Conference on Computational Stochastic Mechanics, Corfu, Greece, September 17-19, 1991, pp. 637-648.
- Lin, B.-C. and A.S. Papageorgiou (1992). "Study of the Response of a Base Isolated Building to Earthquake Motions of Different Levels of Intensity", Proceedings of the 1992 Structures Congress, ASCE, April 13-16, 1992, San Antonio, Texas, edited by Jim Morgan, pp. 416-419. [Organizer and Chairman of the session entitled "Analysis of Recorded Seismic Response of Buildings"].
- 12. **Papageorgiou, A.S.** (1992). "Differential Motions (Strains) Induced in Sedimentary Valleys by Obliquely Incident P and SV Waves", **Seismic Ground Motions, Response, Repair, and Instrumentation of Pipes and Bridges, ASME PVP -**Vol. **227**, pp. 79-85.
- 13. Theoharis, A., G. Deodatis and **A.S. Papageorgiou** (1992). "Frequency-Wavenumber Fourier Amplitudes of Seismic Ground Motion in a Multiple-Layered Half-Space due to a Haskell-type Source", **Proceedings of the Tenth World Conference on Earthquake Engineering**, July 19-24, 1992, Madrid, Spain, pp. 1121-1126.
- 14. **Papageorgiou, A.S.** (1992). "Differential Motions in Sedimentary Valleys", ASCE Specialty Conference on Probabilistic Mechanics, and Structural and Geotechnical Reliability, Denver, Colorado, July 8-10, 1992, pp. 400-403. [Chairman of

the sessions entitled "*Earthquake Engineering*" and "*Spatial Variability of Earthquake Ground Motion*"].

- 15. Pei, D. and **A.S. Papageorgiou** (1993). "Three Dimensional Response of an Infinitely Long Cylindrical Canyon to Obliquely Incident Seismic Waves", presented at the **88th Annual Meeting of the Seismological Society of America**, April 14-16, 1993, Ixtapa-Zihuatanejo, Mexico, <u>Seismological Research Letters</u>, Vol. **64**, No. **1**, March 1993, pp. 27.
- 16. Pei, D. and A.S. Papageorgiou (1993). "Study of the Response of Cylindrical Alluvial Valleys of Arbitrary Cross-Section to Obliquely Incident Seismic Waves Using the Discrete Wavenumber Boundary Element Method", Sixth International Conference of Soil Dynamics and Earthquake Engineering, Bath, United Kingdom, 14-16 June 1993, pp. 149-161.
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#### **Invited papers**:

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- 79. Papageorgiou, A.S. (1985). "Barrier and Asperity Models of Strong Ground Motion", *Strong Ground Motion Simulation and Earthquake Engineering Applications: A Technological Assessment*, <u>EERI Publication No. 85-02</u>, Section 15, pp. 1-9.[This paper was presented at the Workshop on Strong Ground Motion simulation and Engineering Applications conducted by the Earthquake Engineering Research Institute (EERI), with the support of the Electric Power Research Institute (EPRI), the National Science Foundation (NSF), the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Geological Survey (USGS). The Workshop was held April 30 May 3, 1984, at the Jesuit Retreat House in Los Altos, California.]
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- 83. **Papageorgiou, A.S.** (1989). **NSF/EPRI Workshop** on **"Dynamic Soil Property and Site Characterization for Earthquake Resistant Design and Analysis",** November 9-10, 1989, Palo Alto, California. [Invited to participate in this Workshop as a <u>**Recorder**</u> for the panel session titled "*When are site geometry and global characteristics important?*"]
- 84. Papageorgiou, A.S., J. Kim and R.D. Borcherdt (1989). "Armenian Earthquake (7 December 1988): Effects of Local Geology in the City of Leninakan as Predicted by the Boundary Element Discrete Wavenumber Method", American Geophysical Union (AGU) 1989 Fall Meeting, Armenian Earthquake Special Session, Strong Motion and Engineering Seismology, San Francisco, December 4-8, 1989, EOS Supplement, Vol. 70, No. 43, pp. 1199. [Dr. Roger D. Borcherdt headed the U.S. reconnaissance team that visited Armenia immediately after the earthquake.].
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- 88. **Papageorgiou, A.S.** (1997). "Synthesis of Strong—Ground Motion of the Northridge Earthquake: Comparison with Observed Damage Distribution in the San Fernando Valley", Proceedings of the **NEHRP Conference and Workshop on Research on the Northridge, California Earthquake of January 17, 1994**, organized by **CUREE**, August 20-22, 1997, Wyndham Hotel at Los Angeles Airport, Los Angeles, California, Vol. II – Earth Sciences, pp. II 363-II 369.
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### Other Refereed Publications (e.g., Research Reports, Maps etc.):

- 91. **Papageorgiou, A.S.**, "On an Earthquake Source Model of Inhomogeneous Faulting and its Applications to Earthquake Engineering", <u>M.I.T. Civil Engineering, Research Report</u> <u>R81-10</u>, April, 195 pages.
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- 96. **Papageorgiou, A.S.** (2000). "Seismology", Section 2 in "The Marmara, Turkey Earthquake of August 17, 1999: Reconnaisance Report", Edited by Ch. Scawthorn, <u>Technical Report</u> <u>MCEER-00-0001</u>.
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