

# CURRICULUM VITAE

## Professor Ralph J. Archuleta

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### Education:

1969 B.S. magna cum laude in Physics, University of Wyoming  
1971 M.S. in Physics, University of California, San Diego  
1976 Ph.D. in Earth Sciences, Institute of Geophysics and Planetary Physics, Scripps Institution of Oceanography, University of California, San Diego

### Professional Appointments:

1971-1973 Scientific Programmer, Systems, Science, and Software, San Diego, CA  
1976-1977 Postdoctoral Research Associate, IGPP, Scripps, UC San Diego, La Jolla, CA  
1977-1978 National Research Council Postdoctoral Research, USGS, Menlo Park, CA  
1978-1984 Geophysicist, U.S. Geological Survey, Menlo Park, CA  
1984-1990 Associate Professor, University of California, Santa Barbara, CA  
1990-2009 Professor, University of California, Santa Barbara, CA  
2009 – Professor Above Scale, University of California, Santa Barbara, CA  
1991-1997 Associate Director, Institute for Crustal Studies, UCSB, Santa Barbara, CA  
1997-2000 Acting Director, Institute for Crustal Studies, UCSB, Santa Barbara, CA  
2008-2011 Chair, Department of Earth Science, UCSB, Santa Barbara, CA

### Honors and Awards:

1968 Phi Beta Kappa  
1968 Phi Kappa Phi  
1969 Woodrow Wilson Fellow  
1969 University of Wyoming Phi Beta Kappa Outstanding Student (first in graduating class of 1969, College of Arts and Sciences)  
1969 University of California Scholarship  
1978 National Academy of Sciences National Research Council Associateship  
1999 Erskine Fellowship, University of Canterbury, Christchurch, New Zealand  
2002 Commemorative Medal '100 Years of Seismology in Slovakia' for cooperation with Slovak seismologists, given by the Geophysical Institute of the Slovak Academy of Sciences in Bratislava  
2003 Distinguished Alumnus, University of Wyoming  
2004 Distinguished Alumnus (1<sup>st</sup> Recipient), Western Wyoming Community College  
2008 Harry Fielding Reid Medal of the Seismological Society of America  
2010 Visiting Professor, Earthquake Research Institute, University of Tokyo, March 2010  
2011 Fellow, American Geophysical Union  
2012 Visiting Professor, Eidgenössische Technische Hochschule (ETH), Zurich, January-February, 2012

2012 Visiting Professor, Institut des Sciences de la Terre (ISTerre), Universite Joseph Fourier, Grenoble, March-June, 2012

**Professional Leadership Activities (Abbreviated List):**

- 2011- Chair, Scientific Earthquake Studies Advisory Committee (SESAC) to the US Geological Survey
- 2007-2011 Chair, National Steering Committee for the Advanced National Seismic System (ANSS), US Geological Survey
- 2007-2009 Member, USGS Scientific Earthquake Studies Advisory Committee (SESAC)
- 2003-2007 Deputy Director, Southern California Earthquake Center
- 2003-2007 Science Planning Committee Chair, Southern California Earthquake Center
- 1997-2000 Member, National Research Council Committee on Seismology
- 1991-2001 Director, UCSB, to the NSF Southern California Earthquake Center
- 1997, 1998 President, Seismological Society of America
- 1993, 1994 Vice-President Seismological Society of America
- 1994-1996 Board of Directors Seismological Society of America
- 1991-1993 Board of Directors Seismological Society of America
- 1999-present Member, Strong Motion Program Board for COSMOS (Consortium of Organizations for Strong Motion Observation Systems)
- 1996-present Member, IASPEI's International Working Group on Effects of Surface Geology
- 2011 Co-chair of the Organizing Committee for the 4<sup>th</sup> International Symposium on Effects of Surface Geology, UC Santa Barbara, August 23-26, 2011
- 2003&2007 Chair, Organizing Committee for 1st and 2nd International Workshops on  
&2010 Numerical Modeling of Earthquake Source Dynamics, Slovakia
- 2007 Member of external review committee for "Strong Motion and Site Effects" Research at GNS Science, New Zealand
- 1998 Member of external review committee for the geophysical program of the Institute of Earth Sciences, Academia Sinica
- 1999-2001 Chairperson, SCEC Working Group for Strong Ground Motion Prediction
- 1991-1995 Chairperson, SCEC Working Group for Strong Ground Motion Prediction
- 1986-1988 National Section Chairman for Seismology for the annual Fall AGU meeting
- 1987 Program Chair SSA Annual meeting, UC Santa Barbara
- Many Years Panel chair and panel member for the USGS External Grants Program
- 2007-2008 Guest Editor: *Earthquake Spectra*, Special Issue on the Next Generation of Attenuation Relations
- 2001-2002 Guest Editor: *Physics of the Earth and Planetary Interiors*, 4 Special Issues on The quantitative prediction of strong-motion and the physics of earthquake sources, 2003.
- 1986-1987 Consultant for Time-Life Books: Use of computers in science
- 1991-1995 Consultant to Lawrence Livermore National Laboratory: Computational Earthquake Initiative
- 1995-present Consultant to the US Federal Energy Regulatory Commission
- 1992-2003 Consultant to the US Bureau of Reclamation
- 1984-1991 Consultant to the US Nuclear Regulatory Commission on seismic safety of Diablo Canyon Nuclear Power Plant (relicensing hearings)
- 1984-1987 Consultant to ENEA (Italian Commission for Nuclear and Alternative Energy)
- 2012- Consultant to GeoPentech for evaluation of seismic source characterization of the San Onofre Nuclear Generating Stations.

**Committee Chairman and Lead Advisor for the following PhD students (date of degree):**

1988	William Chadwick	(Professor, Oregon State University, USA)
1988	Peter Goldstein	(Research scientist, LLNL, USA)
1991	Ruth Harris	(Research scientist, USGS, USA)
1992	Grant Lindley	(computer specialist, ABC Clio, USA)
1995	Jamison Steidl	(Research associate, ERI, UCSB, USA)
1999	David Oglesby	(Professor, UC Riverside, USA)
2000	L. Fabian Bonilla	(Research scientist, Centre d'Etudes Nucleaire, IRSN, France)
2006	Shuo Ma	(Asst. Professor, California State University at San Diego, CA)
2007	Kenichi Tsuda	(Earthquake scientist at Shimizu Corporation, Japan)
2007	Susana Custódio	(Research associate, University Coimbra, Portugal)
2009	Jan Schmedes	(Exxon Upstream Research, Houston, TX)

*Current PhD Students:*

Qiming Liu, Jorge Crempien

**Post-Graduate Advisor for the following researchers:**

Sandra Seale	(PhD, MIT, USA)
Alexei Tumarkin	(PhD, University of Moscow, Russia)
Kim Olsen	(PhD, University of Utah, USA)
Pengcheng Liu	(PhD, Dalian University, China)
Pascal Favreau	(PhD, Universite Joseph Fourier, France)
Dominic Assimaki	(PhD, MIT, USA)
Gregor Hillers	(PhD, ETH, Switzerland)
Susana Custódio	(PhD, UCSB, USA)

**Some Highlighted Professional Service:**

- When I was President of the Seismological Society of America, we initiated the lobbying of Congress for the U.S. Geological Survey (USGS) Advanced National Seismic System. During my tenure as President, the House authorized (but did not appropriate the money) the ANSS by a vote of something like 413-2. I have served on several USGS ad hoc committees for establishing guidelines for ANSS and served as Chair of the national steering committee for ANSS.
- I am now Chair of the Scientific Earthquake Studies Advisory Committee (SESAC) for the U.S. Geological Survey. This committee was mandated in the authorization of the National Earthquake Hazards Program (NEHRP). It provides advice to the Director of the USGS on the performance and future directions for NEHRP within the USGS. Being Chair of SESAC I also sit on the national Advisory Committee on Earthquake Hazards Reduction (ACEHR) which provides advice to the four agencies — USGS, National Science Foundation, National Institute of Standards and Technology and the Federal Emergency Management Agency — that constitute the NEHRP.
- In 1992 I petitioned the Southern California Earthquake Center to establish a strong motion database so that accelerograms could be retrieved as easily as the seismograms. Over the years and with financial support from SCEC, NSF, USGS, CGS and COSMOS we have developed the COSMOS Virtual Data Center (VDC) [<http://db.cosmos-eq.org>]. The VDC is

an unrestricted web-based search engine for access to worldwide earthquake strong-motion. As of Jan 1, 2007, the VDC database contains the metadata for 623 earthquakes, 3,555 stations and 32,248 accelerograms. This is the only strong motion database that is continually updated with current accelerograms. It is virtual in that the accelerograms generally reside at the agencies that collected the data; the VDC is a database that allows users to decide—based on parameters related to the earthquake, the accelerogram, the station or other characteristics—which accelerograms he/she may wish to download. The VDC provides an automatic pointer to the correct URL of the corresponding agency and the download takes place, transparent to the user. The VDC is now the international search engine in the national strong motion data center ([www.strongmotioncenter.org](http://www.strongmotioncenter.org)).

- I have participated from its very beginnings in the Southern California Earthquake Center. <http://www.scec.org/> I have served as group leader for strong motion, earthquake physics, Director from UCSB, and as Deputy Director from 9/2003 until 6/2007. Within SCEC I initiated and oversaw the development of the Portable Broadband Instrumentation Center. Jamie Steidl and I initiated the SCEC borehole instrumentation program. Both of these instrumentation programs have provided unique data. As the Deputy Director I chaired and coordinated the SCEC planning committee that oversees the scientific directions of SCEC research. Since stepping down at Deputy Director, I have served as UCSB's representative on the SCEC Board of Directors.

Since 1988 I have served as a consultant to different US agencies on the effects of strong motion. I (with Professors Steve Day and the late Professor Keiiti Aki) was a consultant to the U.S. Nuclear Regulatory Commission for Diablo Canyon Nuclear Power Plant. I have served on panels for the U.S. Bureau of Reclamation for dams that could be subjected to strong ground motion. Since 1995 I have been a consultant to the U.S. Federal Energy Regulatory Commission (FERC) on numerous dams. Professor I. M. Idriss, Dr. Norm Abrahamson and I are currently working on seismic guidelines for FERC. I have been directly involved in NGA-west and am currently the chair of the working group for ground motion simulations in NGA-east. NGA is the acronym for the Next Generation of Attenuation relations, i.e., ground motion prediction equations. Since September 2012 I am chair of the Participatory Peer Review Panel for the evaluation of the seismic source characterization for the San Onofre Nuclear Generation Stations. This is part of a Senior Seismic Hazard Analysis Committee (SSHAC) Level 3 study, which is a high-level procedure of the U.S. Nuclear Regulatory Commission.

## Publications

(\* publication indicates lead author was an Archuleta-advised graduate student at the time the paper was written)

#	Year	Title and Authors
1	1970	Focks, R. W., D. J. Hofmann, G.J. Erickson, J. S. Mentek, and R. J. Archuleta (1970) Electronic balloon-payload cutdown timer: <i>Rev. Sci. Instrum.</i> , 41, 131-132.
2	1971	Archuleta, R. J., and s. E. DeForest (1971). Efficiency of channel electron multipliers for electrons 1-50 KeV, <i>Rev. Sci. Instrum.</i> , 42, 89-91.
3	1975	Archuleta, R. J., J. N. and Brune (1975). Surface strong motion associated with a strike-slip event in a foam rubber model of earthquakes: <i>Bull. Seismol. Soc. Am.</i> , 65, 1059-1071.
4	1976	Archuleta, R. J. (1976). Experimental and numerical three-dimensional simulations of strike-slip earthquakes: Ph.D. dissertation, University of California, San Diego, 1-128.
5	1978	Archuleta, R. J., W. B. Joyner, and D. M. and Boore (1978). Progress in estimating ground motion: <i>Proc. Second International Conference on Microzonation</i> , San Francisco, California, published by University of Washington, Seattle, Washington, 255-265.
6	1978	Archuleta, R. J., and G. A. Frazier (1978). Three-dimensional numerical simulations of dynamic faulting in a half-space: <i>Bull. Seismol. Soc. Am.</i> , 68, 541-572.
7	1979	Archuleta, R. J., W. B. Joyner, and D. M. Boore (1979). A method for predicting ground motion at specific sites, progress on seismic zonation in the San Francisco Bay region: <i>U. S. Geological Survey Circular 807</i> , E. Brabb, ed., p. 25-36.
8	1979	Brune, J. N., R. J. Archuleta, and S. H. Hartzell (1979). Far-field S-wave spectra, corner frequencies and pulse shapes: <i>J. Geophys. Res.</i> , 84, 2262-2272. Also published in <i>Fault Mechanics and Its Relation to Earthquake Prediction</i> , U. S. Geological Survey Open-File Report 78-380.
9	1979	Hartzell, S. H., and R. J. Archuleta (1979). Rupture propagation and focusing of energy in a foam rubber model of a stick slip earthquake: <i>J. Geophys. Res.</i> , 84, 3623-3636. Also a correction in <i>J. Geophys. Res.</i> , 84, 6912.
10	1980	Archuleta, R. J., and S. M. Day (1980). Dynamic rupture in a layered medium: an example, the 1966 Park-field earthquake: <i>Bull. Seismol. Soc. Am.</i> , 70, 671-690.
11	1981	Mueller, C., P. Spudich, E. Cranswick, and R. J. Archuleta (1981). Preliminary analysis of digital seismograms from the Mammoth Lakes, California earthquake sequence of May-June 1980: <i>U. S. Geological Survey Open-File Report 81-155</i> .
12	1981	Archuleta, R. J., and S. H. Hartzell (1981). Effects of fault finiteness on near-source ground motion: <i>Bull. Seismol. Soc. Am.</i> , 71, 939-957.
13	1982	Archuleta, R. J., E. Cranswick, C. Mueller, and P. Spudich (1982). Source parameters of the 1980 Mammoth Lakes, California, earthquake sequence: <i>J. Geophys. Res.</i> , 87, 4595-4607.
14	1982	Archuleta, R. J. (1982). Hypocenter for the 1979 Imperial Valley earthquake: <i>Geophys. Res. Letters</i> , 9, 625-628.
15	1982	Archuleta, R. J., and P. Spudich, (1982). Analysis of near-source static and dynamic measurements from the 1979 Imperial Valley earthquake, <i>Proc. Workshop VXI, The Dynamic Characteristics of Faulting Inferred from Recordings of Strong Ground Motion: U. S. Geological Survey Open-File Report 82-591</i> , 784-838.
16	1982	Archuleta, R. J. (1982). Analysis of near-source static and dynamic measurements from the 1979 Imperial Valley earthquake: <i>Bull. Seismol. Soc. Am.</i> , 72, Pt. A, 1927-1956.
17	1984	Archuleta, R. J. (1984). A faulting model for the 1979 Imperial Valley earthquake: <i>J. Geophys. Res.</i> , 89, 4559-4585.
18	1984	Archuleta, R. J. (1984). Modeling strong motion data from the 1979 Imperial Valley earthquake: <i>Proceedings of the Eighth World Conference on Earthquake Engineering, vol. 2, Ground Motion and Seismicity</i> , Prentice-Hall, Inc., Englewood Cliffs, N. J., 369-376.
19	1985	Stuart, W. D., R. J. Archuleta, and A. G. Lindh. (1985). Forecast model for moderate earthquakes near Parkfield, California: <i>J. Geophys. Res.</i> , 90, 592-604.
20	1985	Archuleta, R. J. (1985). Simulating the near-source ground motion of the 1979 Imperial Valley earthquake, <i>Proceedings: Strong-Ground Motion Simulation and Earthquake Engineering Applications</i> , Eds. R. E. Scholl and J. King, Earthquake Engineering Research Institute and Electric Power Research Institute, 20.1-20.8.

- 21 **1986** Archuleta, R. J. (1986). Downhole recordings of seismic radiation, In *Earthquake Source Mechanics, Maurice Ewing Vol. 6, Geophysical Monograph 37*, S. Das, J. Boatwright and C. Scholz, Eds., American Geophysical Union, Washington, D.C., 319-329.
- 22 **1987** Spudich, P., and R. J. Archuleta (1987). Techniques for earthquake ground-motion calculation with application to source parameterization of finite faults, Chapter 5. In *Seismic Strong Motion Synthetics, Computational Techniques*, B. Bolt, Ed., Academic Press, New York, p205-265.
- 23 **1987** \*Goldstein, P., and R. J. Archuleta (1987). Array analysis of seismic signals: *Geophys. Res. Lett.*, 41, 13-16.
- 24 **1987** Archuleta, R. J., J. Watson, J. B. Fletcher and E. Sembera. (1987). Source parameters for two aftershocks. In *The Morgan Hill, California, Earthquake of April 24, 1984, U. S. Geological Survey Bulletin 1639*, Seena N. Hoose, Ed., p33-51.
- 25 **1988** \*Chadwick, W. W. Jr., R. J. Archuleta and D. A. Swanson (1988). The mechanics of ground deformation precursory to dome-building extrusions at Mount St. Helens: 1981-1982. *J. Geophys. Res.*, 93, 4351-4366.
- 26 **1988** Seale, S. H. and R. J. Archuleta (1988). Site effects at McGee Creek, California, In *Earthquake Engineering and Soil Dynamics II -- Recent Advances in Ground Motion Evaluation. Amer. Soc. Civil Eng.*, New York City, N. Y., 173-187.
- 27 **1988** \*Harris, R. A. and R. J. Archuleta (1988). Slip budget and potential for a M7 earthquake in central California, *Geophys. Res. Lett.*, 15, 1215-1218.
- 28 **1989** Archuleta, R. J. and R. A. Harris (1989). A simple crustal structure satisfying strong ground motion between Whittier and North Palm Springs. *SMIP89 Seminar on Seismological and Engineering Implications of Recent Strong-Motion Data*. California Dept. of Conservation, Division of Mines and Geology, May, 1989.
- 29 **1989** Archuleta, R. J. and S. H. Seale (1989). A cooperative NRC/CEA research project on earthquake ground motion on soil sites: data and preliminary analysis, *Transactions of the 10th International Conference on Structural Mechanics in Reactor Technology*, Vol. K1: *Seismic Response Analysis and Design*, Ed. A. H. Hadjian, American Association for Structural Mechanics in Reactor Technology, Los Angeles, 85-90.
- 30 **1989** Seale, S. H., and R. J. Archuleta (1989). Site amplification and attenuation of strong ground motion, *Bull. Seismol. Soc. Am.*, 79, 1673-1696.
- 31 **1990** Gariel, J-C., R. J. Archuleta and M. Bouchon (1990). Rupture process of an earthquake with a kilometer size fault inferred from modeling near-source records, *Bull. Seismol. Soc. Am.* 90, p.870-888.
- 32 **1990** Archuleta, R. J. and S. H. Seale (1990). Seismic studies of soil dynamics at Garner Valley, California, *Transactions of the Eighteenth Water Reactor Safety Information Meeting*, Office of Nuclear Regulatory Research, U. S. Nuclear Regulatory Commission, Rockville, Maryland, 1990.
- 33 **1991** Seale S. H. and R. J. Archuleta, (1991). Analysis of site effects at the Garner Valley downhole array near the San Jacinto fault, *Second International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics*, Paper 8.13, St. Louis, Missouri, 1991, 1203-1210.
- 34 **1991** \*Goldstein, P. and R. J. Archuleta (1991). Deterministic Frequency-Wavenumber Methods and Direct Measurement of Rupture Propagation During Earthquakes Using a Dense Array: Theory and Methods, *J. Geophys. Res.*, 96, 6173-6185.
- 35 **1991** \*Goldstein, P. and R. J. Archuleta (1991). Direct measurements of rupture propagation during earthquakes using a dense array: data analysis, *J. Geophys. Res.*, 96, 6187-6198.
- 36 **1991** \*Harris, R. A., R. J. Archuleta and S. M. Day (1991). Fault steps and the dynamic rupture process: 2-D numerical simulations of a spontaneously propagating shear fracture, *Geophys. Res. Letters*, 18, 893-896.
- 37 **1991** \*Steidl, J. H., R. J. Archuleta and S. H. Hartzell (1991). Rupture history of the 1989 Loma Prieta, California, earthquake by nonlinear inversion of strong motion data, *Bull. Seismol. Soc. Am.*, 81, 1573-1602.
- 38 **1992** Archuleta, R. J., S. H. Seale, P. V. Sangas, L. M. Baker, and S. T. Swain (1992). Garner Valley downhole array of accelerometers: instrumentation and preliminary data analysis, *Bull. Seismol. Soc. Am.* 82, 1592-1621. (Correction, *ibid*, 83, 2039)
- 39 **1992** \*Lindley, G. T. and R. J. Archuleta (1992). Earthquake source parameters and the frequency dependence of attenuation at Coalinga, Mammoth Lakes and the Santa Cruz Mountains, California, *J. Geophys. Res.*, 97, 14,137-14,154.
- 40 **1993** Campillo, M. and R. J. Archuleta (1993). A rupture model for the 28 June 1992 Landers, California, earthquake, *Geophys. Res. Letters*, 20, 647-650.

- 41 **1994** Archuleta, R. J. and A. G. Tumarkin (1994). Empirical prediction of site-specific ground motion spectra, In *Proceedings of the International Workshop on Strong Motion Data, December 13-17, 1993, Menlo Park, CA Vol.2*, Port and Harbor Research Institute, Yokosuka, Japan, 301-316.
- 42 **1994** Tumarkin, A. G., R. J. Archuleta and R. Madariaga (1994). Basic scaling relations for composite earthquake models, *Bull. Seismol. Soc. Am.*, 84, 1279-1283.
- 43 **1994** \*Lindley, G. T. and R. J. Archuleta (1994). Variation of seismic site effects in the Santa Cruz Mountains, California, The Loma Prieta, California, earthquake of October 17, 1989—Strong Ground Motion, *U. S. Geological Survey Professional Paper 1551-A*, 243-253.
- 44 **1994** Tumarkin, A. G. and R. J. Archuleta (1994). Empirical ground-motion prediction, *Annali di Geofisica (Special Issue: Proceedings of the International School on Earthquake Source Mechanics)*, 1691-1720.
- 45 **1995** Tumarkin, A. G. and R. J. Archuleta (1995). Using small earthquakes to estimate large ground motions, Fifth International Conference on Seismic Zonation, Nice, France, Quest Éditions, Presses Académiques, 1173-1180.
- 46 **1995** Olsen, K. B., R. J. Archuleta and J. R. Matarese (1995). Three-dimensional simulation of a Magnitude 7.75 earthquake on the San Andreas Fault, *Science*, 270, 1628-1632.
- 47 **1996** Theodulidis, N., P-Y. Bard, R. J. Archuleta and M. Bouchon (1996), Horizontal to vertical spectral ratio and geological conditions: the case of Garner Valley downhole array in southern California, *Bull. Seismol. Soc. Am.*, 86, 306-319.
- 48 **1996** Olsen, K. B. and R. J. Archuleta (1996). Site response in the Los Angeles basin from three-dimensional simulations of ground motion, *Proceedings of the International Workshop on Site Response subjected to Strong Earthquake Motions, Jan. 16-17, Yokosuka, Japan, Vol. 2*, Port and Harbor Research Institute, Yokosuka, Japan, 220-235.
- 49 **1996** Olsen, K. B. and R. J. Archuleta (1996). Three-dimensional simulation of earthquakes on the Los Angeles fault system, *Bull. Seismol. Soc. Am.*, 86, 575-596.
- 50 **1996** \*Steidl, J. H., A. G. Tumarkin, and R. J. Archuleta (1996). What is a reference site?, *Bull. Seismol. Soc. Am.*, 86, 1733-1748.
- 51 **1996** \*Steidl, J. H. and R. J. Archuleta (1996). The 1989 Loma Prieta, California, earthquake: Are geodetic measurements and rupture models consistent? The Loma Prieta, California, Earthquake of October 17, 1989—Main-shock Characteristics, *U. S. Geological Survey Professional Paper 1550-A*, Ed. P. Spudich, A195-A207.
- 52 **1997** \*Oglesby, D. D. and R. J. Archuleta (1997). A faulting model for the 1992 Petrolia earthquake: Can extreme ground acceleration be a source effect?, *J. Geophys. Res.*, 102, 11877-11,897.
- 53 **1997** \*Bonilla, L. F., J. H. Steidl, G. T. Lindley, A. G. Tumarkin and R. J. Archuleta (1997). Site amplification in the San Fernando Valley, CA: variability of site effect estimation using the S-wave, coda and H/V methods, *Bull. Seismol. Soc. Am.*, 87, 710-730.
- 54 **1997** Tumarkin, A. G. and R. J. Archuleta (1997), Recent advances in prediction and processing of strong ground motions, *Natural Hazards*, 7, 1-17.
- 55 **1997** Olsen, K. B., R. Madariaga, and R. J. Archuleta (1997). Three-Dimensional Dynamic Simulation of the 1992 Landers Earthquake, *Science*, 278, 834-838.
- 56 **1996-1997** Seismic Evaluation Using Site Specific Ground Motion in 1996 and 1997 *Federal Energy Regulatory Commission*
- 57 **1997** Archuleta, R. J., C. Nicholson, J. Steidl, L. Gurrola, C. Alex, E. Cochran, G. Ely and T. Tyler (1997). Initial source and site characterization studies for the U. C. Santa Barbara, campus, UC Campus Laboratory Collaborative Campus Earthquake Program, Lawrence Livermore National Laboratory Report, UCRL-ID-129196.
- 58 **1998** \*Oglesby, D. D. , R. J. Archuleta and S. Nielsen (1998). Earthquakes on dipping faults: The effects of broken symmetry, *Science* 280, 1055-1059.
- 59 **1998** Madariaga, R., K. B. Olsen and R. J. Archuleta (1998). Modeling dynamic rupture in a 3D earthquake fault model, *Bull. Seismol. Soc. Am.* 88, 1182-1197.
- 60 **1998** Archuleta, R. J., G. Mullendore and L. F. Bonilla (1998). Van Norman Dam Complex: highly variable, large amplitude ground motion over small distances, 12<sup>th</sup> Engineering Mechanics Conference Proceedings, ASCE, La Jolla, CA May 17-20, 1998, 226-232.
- 61 **1998** Archuleta, R. J., P. C. Liu and A. G. Tumarkin (1997), Source inversion and ground motion prediction with empirical Green's functions, *Proceedings of Northridge Earthquake CUREE Workshop*, Los Angeles California, Aug. 20-22, Vol. II, 421-428.

- 62 **1998** \*Bonilla, L. F., J. H. Steidl, G. T. Lindley, A. G. Tumarkin and R. J. Archuleta (1998). Comparison of S-wave, coda and H/V site response methods using Northridge aftershock data, *Proceedings of Northridge Earthquake CUREe Workshop*, Los Angeles California, Aug. 20-22, 1997, Vol. II, 216-223.
- 63 **1998** Archuleta, R. J. and K. B. Olsen (1998). Ground motion in Los Angeles: anticipating the next big earthquake, International Symposium on Natural Disaster Prediction and Mitigation, Dec. 1-5, 1997, Kyoto, Japan, 73-79.
- 64 **1998** Archuleta, R. J. and J. H. Steidl (1998). ESG studies in the United States: results from borehole arrays, *The Effects of Surface Geology on Seismic Motion*, Irikura, Kudo, Okada and Sasatani (eds), Vol.1, p. 3-14, A. A. Balkema, Rotterdam.
- 65 **1998** Archuleta, R. J. (1998) Direct observation of nonlinearity in accelerograms, *The Effects of Surface Geology on Seismic Motion*, K. Irikura, K. Kudo, H. Okada and T. Sasatani (eds), Vol.2, p. 787-792, A. A. Balkema, Rotterdam.
- 66 **1998** \*Bonilla, L. F., D. Lavallée and R. J. Archuleta (1998) Nonlinear site response: laboratory modeling as a constraint for modeling accelerograms, *The Effects of Surface Geology on Seismic Motion*, K. Irikura, K. Kudo, H. Okada and T. Sasatani (eds), Vol.2, p. 793-800, A. A. Balkema, Rotterdam.
- 67 **1998** Archuleta, R. J., G. Mullendore and L. F. Bonilla (1998) Separating the variability of ground motion over small distances, *The Effects of Surface Geology on Seismic Motion*, K. Irikura, K. Kudo, H. Okada and T. Sasatani (eds), Vol.2, p. 1059-1065, A. A. Balkema, Rotterdam.
- 68 **1998** Steidl, J. H., R. J. Archuleta, A. G. Tumarkin and L. F. Bonilla (1998) Observations and modeling of ground motion and pore pressure at the Garner Valley, California, test site, *The Effects of Surface Geology on Seismic Motion*, K. Irikura, K. Kudo, H. Okada and T. Sasatani (eds), Vol. 2, p. 225-232, A. A. Balkema, Rotterdam.
- 69 **1999** Archuleta, R. J. (1999). Written Testimony to the House Subcommittee on reauthorization of the 1999 NEHRP Bill, Congressional Record.
- 70 **1999** Archuleta, Ralph J. (1999). SSA 1999 annual meeting presidential address: storytelling, scholarship, and science, *Seismol. Res. Letts.*, 70, p. 530-531.
- 71 **2000** Archuleta, R. J., J. H. Steidl and L. F. Bonilla (2000). Engineering insights from data recorded on vertical arrays, Proceedings of the Twelfth World Conference on Earthquake Engineering, New Zealand Society for Earthquake Engineering, Upper Hutt, New Zealand.
- 72 **2000** Archuleta, R. J., L. F. Bonilla and D. Lavallée (2000). Nonlinearity in observed and computed accelerograms, Proceedings of the Twelfth World Conference on Earthquake Engineering, New Zealand Society for Earthquake Engineering, Upper Hutt, New Zealand.
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### Abstracts:

With my students, postdoctoral scholars and fellow researchers, we have presented 232 papers at national and international meetings, conferences and workshops.