

AARON A. VELASCO

Professor

Professional Geophysicist

University of Texas at El Paso (UTEP)

Geological Sciences

El Paso, TX 79968-0555

Texas Lic. #5560

Office: (915) 747-5101

FAX: (915) 747-5073

aavelasco@utep.edu

1. EDUCATION

- Ph.D. (Geophysics), University of California, Santa Cruz 1993
- B. S. (Applied Geophysics), University of California, Los Angeles 1988

2. PROFESSIONAL EMPLOYMENT

- Professor, University of Texas at El Paso (UTEP) 2008-present
- State Seismologist of Texas, Railroad Commission of Texas 2017-present
- Special Assistant, Director of Strategic Initiatives 2016-2017
- Director, Computational Sciences Program, College of Science (UTEP) 2012-2013
- Interim Associate Dean for Research and Faculty Development, College of Science (UTEP) 2012-2013
- Chair, University of Texas at El Paso (UTEP) 2008-2011
- Associate Professor, University of Texas at El Paso (UTEP) 2002-2008
- Technical Staff Member, Los Alamos National Laboratory (LANL) 1997-2002
- Team and Task Leader, LANL 1999-2002
- Staff Geophysicist, Science Applications International Corporation 1993-1997
- Internet Consultant, Velasco Consulting Services 1994-1995
- Postdoctoral Researcher, Institute of Geophysics and Planetary Physics, Lawrence Livermore National Laboratory 1993
- Research Assistant, University of California, Santa Cruz (UCSC) 1988-1993
- Assistant Field Coordinator PASSCAL Instrument Deployments for:
 - Aftershocks of the Valle de Estrella, Costa Rica, Earthquake (UCSC) 1991
 - Calibration Explosions for the Santa Cruz Mountains (UCSC) 1991
 - Aftershocks of the Loma Prieta, California, Earthquake (UCSC) 1989
- Computer Programmer, Institute of Geophysics and Planetary Physics, University of California, Los Angeles 1987-1988

3. CONSULTANTSHIPS

- Expert Witness 2010-present
- Los Alamos National Laboratory 2002-2007
- Quantum Technologies (QTSI) 2004-2007

4. HONORS

- Distinguished Lecturer, Cal. State Dominguez Hills 2011
- IRIS/SSA Distinguished Lecturer 2009

- Graduate Commencement Keynote Speaker, UCSC 2007
- Hispanos Triunfadores, Science, Community Service Award, El Paso Chamber of Commerce 2006
- U.C. President's Postdoctoral Fellowship 1993-1994
- Ford Foundation Dissertation Year Fellowship 1992-1993
- American Geosciences Institute Scholarship 1991,1992
- Patricia Harris Roberts Fellowship 1988-1991
- National Hispanic Scholarship Fund 1989, 1990, 1991

5. PROFESSIONAL SOCIETIES

- American Geophysical Union
- Seismological Society of America
- Society for the Advancement of Chicanos and Native Americans in Science
- Geological Society of America
- Sigma Xi

6. TEACHING ASSIGNMENTS

- Advanced Physical Geology (GEOL 4315/5315), 3 hours, New Course, Lecture co-taught with C. Andronicos
- Fall 2003 (23 students)
- Advanced Seismology (GEOP 5356), 3 hours, Graduate, Lecture
- Spring 2003 (8 students), Spring 2005 (9 students), Spring 2009 (6 students), Fall 2010 (5 students), Spring 2012 (5 students)
- Digital Signal Processing, (GEOP 5460), 4 hours, Graduate, Lecture/Lab
- Spring 2004 (13 students), Spring 2006 (6 students), Spring 2008 (8 students), Fall 2009 (8 students), Fall 2014 (8 students), Spring 2016 (6 students)
- Introduction to Physical Geology (GEOL 1301), 3 hours, Undergraduate, Lecture
- Spring 2002 (57 students), Spring 2003 (72 students), Spring 2005 (74 students), Fall 2005 (68 students), Spring 2008 (83 students), Spring 2012 (136 students), Spring 2014 (242 students), Fall 2015 (141 students)
- Principles of Earth Science (GEOL 1303), 3 hours, Undergraduate, Lecture
- Fall 2003 (35 students), Spring 2004 (91 students), Spring 2006 (61 students)
- Seismic Methods (GEOP 4332), 4 hours, Lecture/Lab
- Fall 2005 (17 students)
- Seismology, (GEOP 5354), 3 hours, Graduate, Lecture
- Fall 2002 (10 students), Fall 2004 (13 students), Fall 2006 (6 students), Fall 2008 (12 students), Spring 2010 (19 students), Fall 2011 (17 students), Fall 2013 (10 students), Spring 2015 (10 students), Fall 2016 (6 Students)
- Verification Seismology, 2 day workshop for Los Alamos National Laboratory co-taught with B. Stump
- May 2006 (20 professionals), May 2008 (25 professionals)

7. SERVICE

a. UTEP Service

- Member, University Graduate Education Strategic Planning Committee 2015-present
- Co-chair, Kidd Seismic Observatory 2002-present
- Faculty Advisor, SACNAS Student Chapter 2004-present
- Co-Chair, Search Committee for Shallow/Environmental Geophysicist 2016-2017
- Member, College Office for Undergraduate Research Initiatives (COURI) 2010-2016
- Member, Committee for Department Faculty Promotions 2014-2015
- Chair, Search Committee for Exploration Geophysicist 2013-2014
- Chair, Search Committee for Department Chair 2013-2014
- Member, University Honor Program Task Force 2013-2014
- Member, Diversity Advisory Council to the President 2012-2014
- Member, Executive Committee, Faculty Senate 2012-2013
- Pathways to the Geosciences High School Summer Camp, Geophysics, two days 2002-2012
- Chair, Budget Research Study Group 2011
- Chair, Geological Sciences 2008-2011
- Webmaster, Geological Sciences Web Page 2002-2008
- Member, College of Science Dean Selection Committee 2006-2007
- Graduate Advisor, Geological Sciences 2005-2007
- Undergraduate Advisor, Geological Sciences 2004-2005
- Liaison, University Library for Geological Sciences 2002-2005
- Top Ten Seniors Committee 2002
- Research and Engineering Apprenticeship Program (REAP) 2003-2005
- Introduction to Seismology and Nuclear Explosion Monitoring, two days for professionals, Los Alamos National Laboratory, 2002
- Lead Coordinator, Annual SACNAS Reception 2002-2004
- Panel Expert, Preparing Future Faculty, Alliance for Graduate Education and the Professoriate, UTEP-Howard University 2004
- Panel Expert, Alternative Careers in Science for REU Program 2003, 2004
- Judge, Student Research Expo 2004
- Presenter, Mother-Daughter Father-Son Program 2003, 2004

Postdoctoral Advisor

- Azucena Zamora, UTEP 2016-2017
- Anibal Sosa, UTEP 2013
- Hector Gonzalez-Huizar, UTEP 2010-2013
- Musa Hussein, UTEP 2010-2013
- Claudia Aprea, LANL 2000
- Michael Begnaud, LANL 1999-2000

Committee Chair, Masters Thesis

- Alan Jacquez, Undergraduate Student 2017-present
- Nicolas Talavera, Geological Sciences 2015-2016
- Chanel Perez, Geological Sciences 2014-2015
- Richard Alfaro-Diaz, Geological Sciences 2014-2015
- Mohan Pant, Physics 2014-2015
- Arjun Neupane, Physics 2014-2015
- Sergio Celis, Geological Sciences 2012-2015
- Ibrahim Cerda, Geological Sciences 2010-2012
- Keisuke Irie, Geological Sciences 2010-2011
- Ezer Patlan (co-chair with J. Konter), Geological Sciences 2008-2011
- Lennox Thompson, Geological Sciences 2008-2010
- Derek Folger (co-chair with D. Doser), Geological Sciences 2004-2006
- Vicki Gee, Geological Sciences 2003-2005
- Todd Theiner, Geological Sciences 2003-2004

Committee Chair, Ph.D. Thesis

- Solymar Alaya, Geological Sciences 2015-present
- Richard Alfaro-Diaz, Geological Sciences 2015-present
- Mohan Pant (co-chair with M. Karplus), Geological Sciences 2015-present
- Sandra Hardy, Geological Sciences 2012-present
- Ezer Patlan, Geological Sciences 2011-2016
- Azucena Zamora, Computational Sciences 2011-2015
- Lennox Thompson, Geological Sciences 2011-2015
- Tina Carrick (co-chair with D. Doser), Geological Sciences 2011-2014
- Anibal Sosa, Computational Sciences 2011-2012
- Cara Schiek (co-chair with J. Hurtado), Geological Sciences 2004-2009
- Hector Gonzalez, Geological Sciences 2006-2009
- Eva Rumpfhuber, Geological Sciences 2003-2008
- Cleit Zeiler, Geological Sciences 2004-2008

GK-12 Supported/Mentored Students

- Richard Alfaro-Diaz, Ph.D. Student, Geological Sciences 2014-2015
- Anna Ortiz, Ph.D. Student, Geological Sciences 2014-2015
- M.S., Environmental Sciences 2012-2013
- Claire Bailey, Ph.D. Student, Geological Sciences 2014-2015
- Monica Delgado, Ph.D., Biomedical Engineering 2014-2015
- Anais Martinez, Ph.D., Biological Sciences 2014-2015
- Yvette Pereyra, M.S., Student, Geological Sciences 2014-2015
- Chanel Perez, M.S., Geological Sciences 2014-2015
- Keith Kofed, M.S., Environmental Sciences 2014-2015
- Sandra Hardy, Ph.D, Geological Sciences 2013-2015
- Lorraine Negron, Ph.D., Geological Sciences 2013-2014
- Toni Carrick, M.S., Chemistry 2013-2015

- David Quintanar, Ph.D., Biological Sciences 2013-2015
- Ector Martell, M.S., Environmental Sciences 2012-2014
- Katherine Meraz, Ph.D., Biological Sciences 2012-2014
- Francisco Reyes, M.S., Environmental Sciences 2012-2014
- Lauren Storm, M.S., Geological Sciences 2012-2013
- Azucena Zamora, Ph.D., Computational Sciences 2012-2014
- Mark Lara, Ph.D., Environmental Science and Engineering 2011-2013
- Nisa Rhodes, Ph.D., Geological Sciences 2011-2013
- Alia Servin, Ph.D., Environmental Science and Engineering 2011-2013
- Sandra Villareal, Ph.D., Environmental Science and Engineering 2011-2013
- Lennox Thompson, Ph.D., Geological Sciences 2011-2013
- Rolando Cardenas, Ph.D., Computational Science 2010-2012
- Gina Esposito, M.S., Environmental Sciences 2010-2012
- Ezer Patlan, Ph.D., Geological Sciences 2010-2012
- Christian Servin, Ph.D., Computational Sciences 2010-2012
- Cheryl Storer, Ph.D., Biological Sciences 2010-2012
- Jaidee Zavala, Ph.D., Biological Sciences 2010-2012
- Sarah Cervera, Ph.D., Geological Sciences 2010-2011
- Claudia Santiago, M.S., Geological Sciences 2010-2011

Committee Member, Masters Thesis

- Marissa Cameron, Geological Sciences 2012-2014
- Cesar Chacon, Computer Sciences 2012
- Christina Hernandez, Environmental Sciences 2010-2012
- Irbis Gris, Computer Sciences 2010-2011
- Enrique Casana, Geological Sciences 2007
- Katy Wiest, Geological Sciences 2003-2005
- Cara Schiek, Geological Sciences 2003-2004
- Claudia Flores, Geological Sciences 2002-2003
- Roberto A. Saenz, Mathematical Sciences 2003

Committee Member, Ph.D. Thesis

- Anna Mwangi, Geological Sciences 2015-present
- Lorraine Negrón, Geological Sciences 2015-present
- Eric Kappus, Geological Sciences 2014-2016
- Abdusalam Agail, Geological Sciences 2011-2016
- Victor Avila, Geological Sciences 2011-2016
- Sarah Cervera, Geological Sciences 2011-2013
- Nicholas Del Rio, Computer Sciences 2011-2013
- Leonardo Salayandia, Computer Sciences 2011-2012
- Niti Mankhemthong, Geological Sciences 2011-2012
- Antony Wamalwa, Geological Sciences 2008-2011
- Christian Escudero, Geological Sciences 2008-2011

- Oscar Romero-De La Cruz, Geological Sciences 2008-2011
- Matt Averill, Geological Sciences 2005-2007
- Wesley Brown, Geological Sciences 2003-2004
- Annette Veilleux, Geological Sciences 2003-2006
- Nicholas Mariita, Geological Sciences 2003

Mentored Research

- Jessica Dozal, Undergraduate Student 2017-present
- Vanessa Apodaca, Undergraduate Student 2016-present
- Aide Huerta, Undergraduate Student 2016-present
- Alan Jacquez, Undergraduate Student 2016-2017
- Alina Valdez, Undergraduate Student 2014-2017
- Mark Hathazi, Undergraduate Student 2016-2017
- David Soto, Undergraduate Student 2013-2016
- Ashley Grijalva, Undergraduate Student 2011-2014
- Sandra Hardy, Undergraduate Student 2011-2012
- Sergio Celis, Undergraduate Student 2011-2012
- Francisco Torres, Undergraduate Student 2011-2012
- Marissa Cameron, Undergraduate Student 2007-2011
- Andrew Lopez, Undergraduate Student 2007-2011
- Stephen Hernandez, Undergraduate Student 2005-2009
- Leandro Trevino Graduate Student 2003-2008
- Monica Maceira, Graduate Student, Penn. State University/Los Alamos National Laboratory (LANL) 2000-2006
- Daniel Hernandez, Undergraduate Student 2002-2004
- Thomas VanDeMark, Undergraduate Student 2002-2004
- Tiffini Bond, Graduate Student 2003
- Eric Hernandez, High School Student 2003-2005
- Melissa Brophy, Undergraduate Student 2003
- Dowchu Drukpa, Graduate Student 2002
- Jill Franks, Undergraduate Student, University of Saint Louis/LANL 2002
- Claudia Flores, Graduate Student 2001-2002
- Moira Pyle, Undergraduate Student, University of Saint Louis/LANL 2001
- Craig Whitted, Graduate student, University of Arizona 1999
- Brett Ketter, Graduate student, University of Saint Louis 1998

b. Professional Service

National/International

- Member, United States National Committee for the International Union of Geological Sciences, National Academy of Science 2017-present
- Member, Finance Committee, Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) 2015-present

- Member, Strategic Planning Committee, Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) 2015-2016
- Member, National Research Council, Committee on Seismology and Geodynamics 2011-2014
- Chair, Data Products Committee, IRIS 2012-2013
- Scientist, Rapid Array Mobilization Program, 2010 Chile (M=8.9) Earthquake, IRIS 2010
- Member, Vision Committee, SACNAS 2010
- Past-President, SACNAS 2009
- President, SACNAS 2007-2008
- President Elect, SACNAS 2006
- Board Member, SACNAS 2002-2010
- Chair, Committee on Geosciences, SACNAS 2002-2010
- Member, TXESS Revolution Advisory Committee 2008-2009
- Member, National Research Council, Committee on Seismology and Geodynamics 2003-2009
- Chair, EarthScope Education and Outreach Committee 2005-2007
- Member, Task Force on Doctoral Education, UT System 2006-2007
- Member, EarthScope Advisory Panel 2006-2007
- Member, EarthScope Annual Meeting Planning Committee 2006-2007
- Member, IRIS Education and Outreach Standing Committee 2003-2006
- Chair, Committee on Student Presentations, SACNAS 2002-2005
- Member, Advanced National Seismic System, Central United States Panel 2002-2003
- Member, EARTHSCOPE Education and Outreach Committee 2002
- Committee Member, Digital Library for Earth System Education (DLESE) Diversity Committee 2005

State and Regional

- Member, UT Task Force on Ph.D. Education 2006-2007
- Panel Member, Texas Education Agency 2003
- Organizing Committee, MiniCAST 2015 (El Paso) 2015

c. Community Service

- Expert, Local Television and Newspaper Interviews Regarding Earthquakes 2003-present
- Vice President, Board for Insights-El Paso Science Center, Inc. 2013-2015
- Member, Board for Insights-El Paso Science Center, Inc. 2010-2014
- President, Board for Insights-El Paso Science Center, Inc. 2011-2013
- Panel Member, Science Career Expo, Mission Early College High School 2011
- Marathon and Triathlon Coach, Leukemia and Lymphoma Society of America, Team in Training 1999-2006
- Expert, High School Geoscience Curriculum, Texas Education Agency 2003

- Volunteer, Bhutan Days, Geological Sciences Booth, UTEP 2003

8. PROFESSIONAL ACTIVITIES

a. Professional Presentations

Distinguished and Keynote Lectures

- Cal State University, Dominguez Hills, Distinguished Speaker Series, Can a Large Earthquake in Another Country Cause One in Your Backyard? 2011
- University of Texas at El Paso, Louse Stokes Alliance for Minority Participation (LSAMP) Conference, Keynote Address 2010
- 2009 IRIS/SSA Distinguished Lecturer, Can a Large Earthquake in Another Country Cause One in Your Backyard?
- Coos Bay, OR 2009
- Denver Nature and Science Museum 2009
- Southern California Conference on Undergraduate Research, Pomona, Keynote Address 2008
- University of Texas at El Paso, Preparing Future Faculty, Keynote Address 2008
- 1st Summer International Conference on Education, University of Texas at El Paso, Keynote Address 2008
- University of California, Santa Cruz, Graduate Commencement Keynote Address 2007
- Master of Ceremonies, SACNAS Annual Meeting Awards Ceremony 2002, 2005, 2006

Invited Talks

- Seismological Society of America, Investigating earthquake stress release from triggered seismicity in geothermal and induced seismicity regions 2017
- University of Texas at El Paso, Dept. of Geological Sciences New approaches toward advancing our understanding of earthquakes and tectonic processes 2015
- Bureau of Economic Geology, Jackson School of Geosciences, UT Austin New approaches toward advancing our understanding of earthquakes and tectonic processes 2015
- MiniCAST 2015 (El Paso), Fact or Fiction: The Science Behind the Movie "San Andreas" 2015
- Science Teachers Association of Texas (El Paso), Geology of El Paso: It's Our Fault 2015
- SACNAS, Big Data in the Geosciences, Conference Session 2014
- Purdue University, The Roles of Static and Dynamic Stresses in Connecting Earthquakes: Case Studies of Recent Events, Seminar 2013
- Rotary Club, El Paso, TX, Can El Paso have a Large Earthquake?, Seminar 2012

- American Geophysical Union, Fall Meeting, The Roles of Static and Dynamic Stresses in Connecting Earthquakes: Case Studies of Recent Events (Invited for Session S21D) 2011
- Southern Methodist University, Dynamic Stress Modeling: Insights into the Physics of Earthquakes and Non-Volcanic Tremor, Seminar 2011
- Fort Bliss, El Paso, TX, Larger Earthquakes in El Paso?, Seminar 2011
- Cornell University, Can a Large Earthquake in Another Country Cause One in Your Backyard?, Seminar 2009
- National Earthquake Information Center, Can a Large Earthquake in Another Country Cause One in Your Backyard?, Seminar 2009
- New Mexico Tech, Can a Large Earthquake in Another Country Cause One in Your Backyard?, Seminar 2009
- Penn. State University, Insights into Dynamic Triggering 2007
- University of Central Washington, Insights into Dynamic Triggering 2007
- California State University Dominguez Hills, Insights into Dynamic Triggering 2007
- University of Wisconsin, The Bhutan Himalaya: Insights into Himalayan Formation from Seismic Data; The 2004 Sumatra earthquake 2006
- Georgia Tech, The Bhutan Himalaya: Insights into Himalayan Formation from Seismic Data 2006
- El Paso Community College, 15th Annual International Conference on the quality of life on the U.S.-Mexico border, Shake, Rattle, and Roll 2005
- Geological Society of America, Fall Meeting, The Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) Geoscience Initiative 2004
- University of Texas at Austin, The Future of Seismology, Optimizing People and Performance (Diversity); The Bhutan Himalaya: Insights into Himalayan Formation from Seismic Data 2004
- IRIS Annual Workshop, The Future of Seismology, Optimizing People and Performance (Diversity) 2004
- Southern Methodist University, The Bhutan Himalaya: Insights into Himalayan Formation from Seismic Data 2004
- University of Texas at El Paso, Physics Department, The UTEP Geophysics Program 2004
- New Mexico Tech, The Bhutan Himalaya: Insights into Himalayan Formation from Seismic Data 2004
- Texas Education Agency, The EarthScope Initiative 2003
- University of Arizona, The Bhutan Himalaya: Preliminary Results from a Temporary Seismic Network 2003
- Joint Statistical Meetings, Annual Meeting, Nuclear Explosion Monitoring: History, Seismology, and Statistics 2003
- American Geophysical Union, Fall Meeting, The Society for the Advancement of Chicanos and Native Americans in Science (SACNAS) Geoscience Initiative 2002

- EARTHSCOPE Education and Outreach, The EarthScope Knowledge Base 2002
- University of Indiana, Bloomington, Unusual Seismic Events in China and Implications for Nuclear Explosion Monitoring 2001
- Purdue University, The 1997 Tibet ($M_w=7.5$) Earthquake: Rupture Characteristics and the Aftershock without a Shock 2001
- Saint Louis University, The 1997 Tibet ($M_w=7.5$) Earthquake: Rupture Characteristics and the Aftershock without a Shock 2001

Talks

- MiniCAST (Science Teacher) Conference, El Paso, Fact or Fiction: The science behind the movie San Andrea 2016
- MiniCAST (Science Teacher) Conference, El Paso, Fact or Fiction: The science behind the movie San Andrea 2015
- Incorporated Research Institutions for Seismology, Annual Meeting 2002, 2004
- Seismic Research Symposium, Conference on Monitoring the Comprehensive Test Ban Treaty 1998-2003
- American Geophysical Union,
- Fall Meeting, 1989-1994,1996,1998-present
- Spring Meeting 1998
- Seismological Society of America, Annual Meeting 1999-2000, 2004-2006
- International Union of Geophysics and Geodesy, Vienna, Austria 1991
- Society for the Advancement of Chicanos and Native Americans in Science, Annual Meeting 1991, 1992, 1993, 1997, 2003, 2010-2012

b. Panel Member for Peer Review

- National Science Foundation, Earthscope 2013-2016
- National Science Foundation, GK12 2005
- National Earthquake Hazard Reduction Program, United States Geological Survey 2001
- Institute of Geophysics and Planetary Physics, Lawrence Livermore National Laboratory 2000

c. Professional Peer Reviewer

- Nature
- Journal of Geophysical Research
- Bulletin of the Seismological Society of America
- Tectonics
- Physics of the Earth and Planetary Interiors
- Natural Hazards
- Earth and Planetary Science Letters
- Pure and Applied Geophysics
- American Geophysical Union, Monograph Series
- Institute of Geophysics and Planetary Physics

- Geophysical Research Letters
- National Science Foundation
- National Nuclear Security Agency
- Department of Defense
- Department of Energy
- State Department
- Earth, Planets and Space (EPS)
- Geology
- Seismology Research Letters

9. FUNDED AND PENDING GRANTS

- (28) Los Alamos National Laboratory
Title: Seismic infrastructure and training in Bhutan
Role: co-PI; Amount: \$87,852 for one year Pending
- (27) Department of Homeland Security
Title: Enhancing Arctic Coastal Domain Awareness with the New Earthscope Seismic Network in northern Alaska and Western Canada
Role: co-PI; Amount: \$90,000 for two years Pending
- (26) United States Geological Survey, NEHRP
Title: Unraveling earthquake stresses: Insights from dynamically triggered and induced earthquakes
Role: co-PI; Amount: \$91,435 for one year Pending
- (25) National Science Foundation, AGEP
Title: AGEP Transformation Alliance: Southwest Alliance for the STEM Hispanic Professoriate
Role: co-PI; Amount: \$3,000,000 for five years Pending
- (24) National Science Foundation, HRD 8/2016
Title: NSF INCLUDES: Building upon CAHSI's Success to Establish a Networked Community for Broadening Participation of Hispanics in Graduate Studies
Role: co-PI; Amount: \$299,903 for two years Funded
- (23) National Science Foundation, Geophysics 7/2016
Title: Collaborative Research: Investigating fault geometries and rupture processes in the Nepalese Himalaya following the April 25, 2015 Gorkha earthquake
Role: co-PI; Amount: \$213,221 for two years Funded
- (22) National Science Foundation, IUSE 3/2015
Title: GP_EXTRA: Academic Year Pathways Research Experience Program (AY-PREP)
Role: PI; Amount: \$498,000 for three years Funded
- (21) National Science Foundation, RAPID 6/2015
Title: RAPID: Collaborative Research: Nepal Array Measuring Aftershock Seismicity Trailing Earthquake
Role: co-PI; Amount: \$131,790 for one year Funded

- (20) National Science Foundation, CREST 9/2012
 Title: CREST Phase II: Cyber-ShARE Center of Excellence
 Role: co-PI; Amount: \$5,000,000 for five years Funded
- (19) National Science Foundation, Opportunities For Enhancing Diversity In The Geosciences 5/2011
 Title: Promoting Initiatives For Diversity In The Geosciences
 Role: Co-PI for SACNAS; Amount \$796,878 For Five Years Funded
- (18) National Science Foundation, Earthscope 4/2011
 Title: Collaborative Research: Systematic Analysis Of Dynamic Earthquake Triggering Using The USARRAY
 Role: Co-PI; Amount \$252,898 for three years Funded
- (17) National Science Foundation, Division of Undergraduate Education 4/2010
 Title: Recruiting and Keeping Undergraduate Students in the Sciences
 Role: co-PI; Amount: \$550,381 for five years Funded
- (16) National Science Foundation, Graduate STEM Fellows (GK-12) 6/2009
 Title: Science for a Sustainable Future: Developing the Next Generation of Diverse Scientists
 Role: PI; Amount: \$2,983,388 for five years Funded
- (15) National Science Foundation, Division of Earth Sciences 6/2009
 Title: Surface wave triggering of earthquakes and non-volcanic tremor: Insights into the physics of rupture
 Role: co-PI; Amount: \$279,362 for two years Funded
- (14) National Institute for Health, Nat. Inst. Gen. Medical Sciences (NIGMS) 02/2007
 Title: SACNAS: Initiatives for Equity in Science
 Role: co-PI; Amount: \$6,183,542 for five years Funded
- (13) National Science Foundation, CREST 03/2007
 Title: CREST: CREST: Cyber-ShARE Center of Excellence
 Role: co-PI; Amount: \$5,000,000 for five years Funded
- (12) National Science Foundation, International Polar Year 03/2007
 Title: IPY: A SACNAS Initiative for Engaging New Audiences for Polar Research
 Role: PI; Amount: \$1,296,770 for three years Funded
- (11) National Science Foundation, International Polar Year 05/2006
 Title: IPY-ROAM: International Polar Year Research and Educational Opportunities in Antarctica for Minorities
 Role: co-PI; Amount: \$452,108 for three years Funded
- (10) University of Texas, Advanced Research Projects 5/2006
 Title: Development of a methodology for integrated analysis to arrive at a 3-D models of earth structure
 Role: co-PI; Amount: \$69,506 Funded
- (9) National Science Foundation, Opp. Enhancing Diversity Geosciences 10/2004
 Title: Track 2: Pathways - A Geoscience Network for Training and Recruitment of Future Earth Scientists in El Paso
 Role: co-PI; Amount: \$1,484,851 for 5 years Funded
- (8) National Science Foundation, Opp. Enhancing Diversity Geosciences 10/2004
 Title: Track 2: SACNAS Initiative for Equity in the Geosciences
 Role: co-PI; Amount: \$1,242,876 for 5 years Funded

- (7) Department of Defense, Instrumentation and Research Support Program
for Hispanic Serving Institutions 07/2004
Title: Seismic Instrumentation for Solidifying Research Capabilities in Defense
and Earthquake Science and Education
Role: PI; Amount: \$200,000 Funded
- (6) International Program, National Science Foundation 02/2003
Title: US-Bhutan Workshop: Seismotectonics and its Relationship to
Natural Hazards in the Bhutanese Himalaya
Role: co-PI; Amount: \$6,900 Funded
- (5) National Nuclear Security Administration 05/2003
Title: Source Phenomenology Experiment (SPE) in Arizona,
Role: co-PI; Amount: \$79,433 for two years Funded
- (4) National Science Foundation, Office of International Science and Engineering 2/2003
Title: US-Bhutan Workshop: Seismotectonics and its Relationship to
Natural Hazards in the Bhutanese Himalaya
Role: co-PI; Amount: \$6,900 Funded
- (3) University Research Initiative, University of Texas at El Paso 11/2002
Title: Evolution and seismic hazard of the southern Rio Grande rift near
El Paso, TX.
Role: PI; Amount: \$2,160 for 9 months Funded
- (2) National Earthquake Hazards Reduction Program, U. S. Geological
Survey 05/2002
Title: Seismic investigation of historical and recent earthquakes of the Mendocino
Triple Junctions region.
Role: PI; Amount: \$80,098 for two years Funded
- (1) Los Alamos National Laboratory 11/2001
Title: Analysis of a seismic array in Bhutan.
Role: co-PI; Amount: \$158,305 for three years Funded

10. PUBLICATIONS

a. In preparation or submitted

- Thompson, L., A. A. Velasco, V. Kreinovich, R. Romero, and A. Sosa, 2017, 3-D shear-wave model in the southwestern U.S. using 1-D constrained multiobjective optimization, to be submitted to *J. of Geophysical Research*.
- Alfaro-Diaz, R., A. A. Velasco D. L. Kilb, and K. L. Pankow, 2017, Dynamic Triggering in Coso, CA, to be submitted to *Nature Geoscience*.
- Patlan, E. A. Wamalwa, G. Kaip, and A. A. Velasco, 2017, Seismic characterization of Silali, Paka, and Korosi volcanic center, Kenya, East African Rift, to be submitted to *Geophysical Research Letters*.

b. Peer Reviewed

64. Thompson, L., A. A. Velasco, A. Zamora, and M. Hussein, 2017, Geophysical constraints on the crustal structure of the Southern Rio Grande Rift, *Bull. Seis. Soc. Am.*, 107, DOI: 10.1785/0120150187.

62. Thompson, L., A. A. Velasco, and V. Kreinovich, 2016, A constrained multi-objective optimization framework for joint inversions, submitted to *AIMS Geoscience*. *AIMS Geosciences*, 2016, 2(1): 63-87. doi: 10.3934/geosci.2016.1.63.
61. Zamora, A., and A. A. Velasco, 2016, Inversion of gravity anomalies using Primal-Dual Interior Point, *AIMS Geoscience*, 2(2): 116-151. doi: 10.3934/geosci.2016.2.116.
60. Velasco, A. A., R. Alfaro-Diaz, D. L. Kilb, and K. L. Pankow, 2016, Detecting local earthquakes within the wavetrain of large, remote teleseismic events: Application to data in the continental U.S., *Bull. Seis. Soc. Am.*, 106, 512-525.
<http://dx.doi.org/10.1785/0120150156>
59. Carrick, T., K. C. Miller, E. A. Hagedorn, Bridget R. Smith-Konter, A. A. Velasco, 2016, Pathways to the Geosciences summer high school program: A ten year evaluation, *J. Geoscience Ed.*, 64, 87-97.
58. Castro, R., R., H. González-Huizar, F. R. Zúñiga, V. M. Wong, and A. A. Velasco, 2015, Delayed dynamic triggered seismicity in northern Baja California, México Caused by Large and Remote Earthquakes, *Bull. Seis. Soc. Am.*, 105, 1825-1835, doi: 10.1785/0120140310.
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