

Dr. Sean P. S. Gulick

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University of Texas at Austin

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Research Interests

- Seismic reflection, ocean drilling, and submersible studies of convergent margins to examine tectonic influences, structural deformation, fluid flow, and earthquake hazards
- Imaging and geologic sampling of *in situ* tectonic and crater laboratories: microplates, triple junctions, transitional plate boundaries, and bolide impacts
- Quantitative high-resolution marine geological and geophysical studies of strata formation and deformation associated with glacial-interglacial cycles on active and passive margins

Employment

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| Research Scientist, University of Texas Institute for Geophysics | Aug. 2007-Present |
| Research Associate, University of Texas Institute for Geophysics | Dec. 2001- July 2007 |
| Post-doctoral Fellow, University of Texas Institute for Geophysics | June 1999-Nov. 2001 |

Education

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| Ph.D. in Geological Sciences, Lehigh University, Bethlehem, Pennsylvania | 1999 |
| Dissertation: "Seismic studies of the southern Cascadia subduction zone near the Mendocino triple junction," Advisor: A. Meltzer, Committee: B. Carson, D. Anastasio, S. Clarke, Jr. (USGS), and J. Diebold (LDEO). | |
| Bachelor of Science in Geology, Minor in Marine Sciences, University of North Carolina, Chapel Hill, North Carolina, Advisor: Christine Powell. | 1993 |

Field Experience

STEEP: ST, Elias Erosion/tectonics Project

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| Chief Scientist, Reflection and refraction studies on R/V <i>Marcus Langseth</i> | September, 2008 |
| <u>Exploring controls on great earthquake rupture, Sumatra-Andaman convergent margin</u> | |
| Co-Chief Scientist, Seismic imaging on R/V <i>Sonne</i> | June-July, 2008 |
| <u>Nankai Trough Seismogenic Zone Experiment IODP Expedition 314</u> | |
| Logging Specialist, Log-Seismic Integration Team on D/V <i>Chikyu</i> | Sept.-Nov., 2007 |
| <u>Imaging and modeling impact generated deformation at the Chicxulub Crater</u> | |
| Co-Chief Scientist, Seismic Imaging on R/V <i>Maurice Ewing</i> | Jan.-Feb., 2005 |
| <u>High-resolution imaging and sampling of Alaskan glacial sedimentation</u> | |
| Seismic Acquisition Specialist during Seismic Imaging, Swath Mapping, and Sediment Coring cruise on R/V <i>Maurice Ewing</i> | Aug.-Sept., 2004 |
| <u>Nankai Subduction Margin ROV and Submersible Studies of Active Venting</u> | |
| Shipboard Geologist, ROV studies aboard M/V <i>Kairei</i> | July-Aug. 2002 & May-June 2003 |
| Visiting Scientist, Ocean Research Institute including leg aboard M/V <i>Yokosuka</i> | July 2000 |
| <u>Office of Naval Research's Geoclutter marine acoustics research program</u> | |
| Shipboard Scientist, Shallow drilling of New Jersey margin on R/V <i>Knorr</i> | Sept.-Oct. 2002 |
| Shipboard Geophysicist, 2-D and 3-D CHIRP seismic on R/V <i>Endeavor</i> | Aug.-Sept. 2001 |

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| Shipboard Scientist, Grab sampling and coring on R/V <i>Cape Henlopen</i> <u>Ocean Drilling Program Leg 196: Nankai Trough accretionary prism fluid flow</u> | July-Aug. 2001 |
| Logging Specialist, Logging while drilling on JOIDES <i>Resolution</i> <u>Investigation of Nankai Subduction Thrust Seismicity and Fault Properties</u> | Jan.-Feb. 2001 |
| Shipboard Geophysicist, 3-D Seismic off Japan on R/V Maurice Ewing <u>Mendocino Triple Junction Seismic Experiment, Lehigh University</u> | June-Aug. 1999 |
| Shipboard Geophysicist, Seismic imaging off California on R/V <i>Maurice Ewing</i> <u>National Undersea Research Program: Oregon and Washington seafloor deformation</u> | June 1994 |
| Shipboard Geologist, Submersible/ROV studies on the M/V <i>Laney Choest</i> <u>Eel River Basin Gas Hydrate Study</u> | Oct. 1996 & 1997 |
| Shipboard Geologist, ROV studies aboard the R/V <i>Point Lobos</i> | Aug. 1997 |

Graduate Students

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| Mr. Robert Reece, UT DGS, Advisor | Ph.D. Expected, 2013 |
| Ms. Kylara Martin, UT DGS, Advisor | Ph.D. Expected, 2011 |
| Ms. Lindsay Lowe, UT DGS, Advisor | Ph.D. Expected, 2010 |
| Ms. Zulmacristina Pearson, UAF, Committee Member | M.S. Expected, 2009 |
| Dr. Bryce Willems, NIU, Committee Member (now a Univ Alaska Anchorage) | Ph.D., 2009 |
| Mr Ryan Elmore, UT DGS, Advisor (now at Marathon) | M.S., 2008 |
| Dr. Jen Aschoff, UT DGS, Committee Member (now at Colorado School of Mines) | Ph.D., 2008 |
| Ms. Emily Pangborn, UT DGS, Committee Member (now at Shell) | M.S., 2007 |
| Ms. Keren Mendoza, UNAM, Committee Member (now at CGG Veritas) | M.S., 2007 |
| Mr. Matt McDonald, UT DGS, Research Advisor (now at US National Park Service) | M.S., 2006 |
| Dr. Sylvia Nordfjord, UT DGS Ph.D., Research Collaborator (now at Shell) | Ph.D., |
| 2005 | |
| Mr. David Gorney, UT DGS M.S., initial Research Advisor (now at Marathon) | M.S., 2004 |
| Dr. Robert Burger, UT DGS Ph.D, Research Collaborator (now at Yale Univ.) | Ph.D., 2000 |

Awards and Honors

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| Consortium for Ocean Leadership Distinguished Lecturer | 2007-2008 |
| Jackson School of Geosciences Research Achievement Award | 2007-2009 |
| Joint Oceanographic Institutions Distinguished Lectureship | 2007-2008 |
| Jackson School of Geosciences Research Fellowship | 2006-2007 |
| Jackson School of Geosciences Young Scientist Fellowship | 2005-2006 |
| Japanese Marine Science and Technology honorarium for Shinkai 6500 cruise | 2000 |
| Palisades Geophysical Institute Postdoctoral Fellow | 1999-2002 |
| Geological Society of America Annual Meeting Travel Grant | 1998 |
| Lehigh University College of Arts and Sciences Travel Grant | 1998 |
| Lehigh University Earth and Environmental Sciences Research Grant | 1997 |
| Best Student Paper Award, Seismological Society of America Eastern Section | 1993 |

Invited Lectures

- “Geohazards of subduction zones and how marine geophysics can yield insights: Examples from the Nankai Trough and Sumatran margin”, presented at University of Texas at El Paso and at University of Southampton, National Oceanography Centre, UK **2009**
- Consortium for Ocean Leadership lecture series: “One Rock to Change the World: Story of the Chicxulub Impact Crater”, presented at Univ. of St. Thomas, Univ. of Arkansas, Montana Tech., New Mexico State Univ., Renesaller Polytechnical Inst., Georgia Southern Univ., Queens College, and Univ. of Florida **2007-2008**
- Environmental Sciences Institute Hot Science, Cool Talks, University of Texas **2008**
- “Bolide impact hazards: Lessons from Chicxulub and smaller events:”, IODP Geohazards Workshop, Portland, Oregon **2007**
- “Imaging and Drilling the Chicxulub Impact Crater”, Seminar Series, Universidad Nacional Autonoma Mexico, Mexico City, Mexico **2007**
- “Subduction Zones: A story of deformation, dewatering, and great earthquakes,” Foster-Hewitt Lecture Series, Lehigh University, Bethlehem, PA **2004**
- “3-D images of the outer Nankai accretionary margin: Reconstructing a prism,” Seminar Series, University of Florida, Gainesville, FL **2003**
- “Tectonic interplay between oblique subduction and Mendocino triple junction migration along the southern Cascadia subduction zone, offshore northern California,” GSA Penrose Conference: Great Cascadia Earthquake Tricentennial, Seaside, OR **2000**
- “Mendocino triple junction influence on and neotectonic implications of seismically imaged Quaternary faulting in the offshore Eel River forearc basin, northern California,” 2000 PANGA meeting, Corvallis, OR **2000**

Teaching Experience

- Lecturer, *Marine Geology and Geophysics Field Course*, Design and taught laboratory and at sea field course supplying hands on experience with a range of MG&G techniques, University of Texas **2008-2009**
- Lecturer, *Tectonics*, team taught covering plate boundary processes, upper level undergraduates and graduate students, enrollement of ~20 students per year, University of Texas **2006-2009**
- Guest Lecturer, *Tectonics*, University of Texas **2001-2005**
- Substitute Lecturer, *Seismology, Rocks and Minerals, Sedimentology, and Geographic Information Systems*, Lehigh University **1997-1998**
- Teaching Assistant, *Seismology, Geographic Information Systems, Structural Geology, Hydrogeology, and Introduction to Geology*, Lehigh University **1995-1998**

Workshops and Committee Service

- Member of the INVEST Steering Committee for planning renewal of IODP **2008-2009**
- Co-convener of STEEP/IODP Alaska Workshop, Austin, TX **2009**
- Member of the Site Survey Panel of IODP **2007-2011**
- Co-chair IODP-MI Depth Scale meeting, Texas A&M University **2006**
- IODP-ICDP Chicxulub Drilling Workshop, Steering Committee **2006**

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| 1 st International Conference on Impact Cratering in the Solar System, ESA, Netherlands | 2006 |
| GSA Backbone of the Americas meeting, Mendoza Argentina | 2006 |
| International Core-Log-Seismic Integration Workshop, Keynote Speaker | 2005 |
| GSA Penrose Conference: Arc-Continent Collisions | 2005 |
| International 3-D Seismic Workshop, Lamont-Doherty Earth Observatory | |
| 2005 | |
| Member of the Scientific Measurements and Science Technology Panels of IODP | 2003-2005 |
| IODP Downhole Tools Workshop | 2004 |
| Member of the interim Scientific Measurements Panel (iSciMP) of IODP | 2002-2003 |
| Co-convenor of Joint NSF-JOI Tectonic-Climat Interplay Workshop | 2003 |
| 3 rd International Conference on Large Meteorite Impacts | 2003 |
| University of Delaware research vessel advisory committee | 2001-2003 |
| R/V Maurice Ewing Midlife Refit Workshop | 2002 |
| NanTroSEIZE conference on Riser Drilling in Nankai Trough | 2002 |
| Conference on U.S. Participation in IODP (CUSP) | 2002 |
| Leg 190/196 2 nd Post-cruise Meeting in Kochi, Japan | 2002 |
| NSF-MARGINS Source-to-Sink planning workshop in Lake Tahoe, California | |
| 2000 | |
| PANGA GPS workshop to interface with EARTHSCOPE's Plate Boundary Observatory | 2000 |
| NSF sponsored workshop on the Mendocino triple junction, Menlo Park, California | 1994 |

Professional Affiliations

American Geophysical Union, Geological Society of America, Union of Concerned Scientists

Publications

Journal Articles (* denotes student first author)

Submitted (3)

Gulick, S., Bangs, N., Martin, K., Moore, G., Sawyer, D., Nakamura, Y., Uplift history of the outer Kumano forearc basin: Implications for splay fault development: *Geology*, submitted, 2009.

Martin, K.*, **Gulick, S.**, Bangs, N., Moore, G., Ashi, J., Park, J.-O., Kuramoto, S., Taira, A., Possible strain partitioning structure between Kumano forearc basin and the slope of the Nankai Trough accretionary Prism: *Geology, Geophysics, Geochemistry*, submitted, 2009.

Goff, J.A., Allison, M.A., **Gulick, S.P.S.**, Offshore transport of sediment during Hurricane Ike, Texas Gulf Coast, USA: *Geology*, submitted, 2009.

In Press (2)

Cowan, E.A., Seramur, K.C., Powell, R.D., Willems, B.A, **Gulick, S.P.S.**, Jaeger, J.M., Fjords as temporary sediment traps: History of glacial erosion and deposition in Muir Inlet, Glacier Bay National Park, Southeastern Alaska: *GSA Bulletin*, in press.

Barton, P.J., R.A.F. Grieve, J.V. Morgan, A.T. Surendra, P. Vermeesch, G.L. Christeson, **S.P.S. Gulick**, and M.W. Warner (2009), Seismic images of Chicxulub impact melt sheet and comparisons with Sudbury, *Large Meteorite Impacts and Planetary Evolution IV: Geological Society of America Special Paper*, in press.

Published (33)

- Christeson, G.L., Collins, G., Morgan, J.V, **Gulick, S.P.S.**, Barton, P.J., Warner, M.R.,
Mantle deformation beneath the Chicxulub impact crater: *Earth and Planetary
Research Letters*, v. 284, p. 249-257, doi:10.1016/j.epsl.2009.04.033, 2009.
- Bangs, N.L.B., Moore, G.F., **Gulick, S.P.S.**, Pangborn, E.M., Tobin, H., Broad, weak regions of
the Nankai Megathrust and implications for shallow coseismic slip: *Earth and Planetary
Research Letters*, v. 284, p. 44-49, doi:10.1016/j.epsl.2009.04.026, 2009.
- Moore, G. F., J-O. Park, N. L. Bangs, **S. P. Gulick**, H. J. Tobin, Y. Nakamura, S. Sato, T. Tsuji,
T. Yoro, H. Tanaka, S. Uraki, Y. Kido, Y. Sanada, S. Kuramoto, and A. Taira, Structural and
seismic stratigraphic framework of the NanTroSEIZE Stage 1 transect: Kumano 3-D seismic
survey, in *Proceedings of the Intergrated Ocean Drilling Program, Expedition Reports
314/315/316*, doi:10.2204/iodp.proc.314315316.2009, 2009.
- Gulick, S.**, Barton, P., Christeson, G., McDonald, M., Mendoza, K., Morgan, J., Pearson, Z.,
Surrendra, A., Urrutia, J., Vermeesch, P., Warner, M., Importance of pre-impact crustal
structure in the asymmetry of the Chicxulub impact crater: *Nature Geosciences*, v. 1, p. 131-
135, DOI: 10.1038/ngeo103, 2008.
- Berger, A.* , **Gulick, S.**, Spotila, J., Jaeger, J., Chapman, J., Lowe, L., Pavlis, T., Ridgway, K.,
Willems, W., Tectonic response in a glaciated orogenic wedge to late Cenozoic climate change:
Nature Geoscience, 1, 793-799, doi: 10.1038/ngeo334, 2008.
- Worthington, L.* , **Gulick, S.**, Pavlis, T., Bruns, R., Mann, P., Localized deformation zones in the
offshore leading edge of the Yakutat microplate, *Gulf of Alaska Active Tectonics and Seismic
Potential of Alaska*, edited by J.T. Freymueller, P.J. Haeussler, R.L. Wesson, G. Ekström,
Geophysical Monograph Series, Volume 179, 350 pp., ISBN 978-0-87590-444-3, 2008.
- Chapman, J.B.* , Pavlis, T.L., **Gulick, S.**, Berger, A., Lowe, L., Spotila, J., Bruhn, R., Vorkink,
M., Koons, P., Barker, A., Picornell, C., Ridgway, K., Hallet, B., Jaeger, J., McCalpin, J.,
Neotectonics of the Yakutat collision: Changes in deformation driven by mass redistribution:
Active Tectonics and Seismic Potential of Alaska, edited by J.T. Freymueller, P.J. Haeussler,
R.L. Wesson, G. Ekström, *Geophysical Monograph Series, Volume 179*, 350 pp., ISBN 978-0-
87590-444-3, 2008.
- Collins, G.S., Morgan, J., Barton, P., Christeson, G., **Gulick, S.**, Urrutia, J., Warner, M.,
Wunnemann, K., Dynamic modeling suggests asymmetries in the Chicxulub crater are caused
by target heterogeneity: *Earth and Planetary Science Letters*, Vol: 270, Pages: 221 - 230, ISSN:
0012-821X, 2008.
- Mosher, D.C., J.A. Austin, Jr., D. Fisher, and **S.P. Gulick**, Deformation of the northern Sumatra
accretionary prism: evidence for strain partitioning from high-resolution seismic reflection
profiles and ROV observations: *Marine Geology*, v. 252, p.89-99, 2008.
- McDonald, M.* , Melosh, J., **Gulick, S.**, Oblique impacts and peak ring position: Comparing
Venusian craters to Chicxulub: *Geophysical Research Letters*, v. 35, L07203,
doi:10.1029/2008GL033346, 2008.
- Gulick, S. P. S.**, Lowe, L., Pavlis, T., Mayer, L., Gardner, J., Geophysical insights into the
Transition fault debate: Propagating strike-slip in response to stalling Yakutat block
subduction in the Gulf of Alaska: *Geology*, v. 35, p. 763–766; doi: 10.1130/G23585A, 2007.
- Fisher, D., Mosher, D., Austin, J. A., Jr., **Gulick, S. P. S.**, Masterlark, T., and Moran, K., Active
deformation across the Sumatran forearc over the December 2004 Mw9.2 rupture, *Geology*, v.

- 35., pp. 99-102, DOI: 10.1130/G22993A.1, 2007.
- Nordfjord, S. *, Goff, J. A., Austin, J. A., Jr., **Gulick, S. P. S.**, Seismic facies of incised valley-fills, New Jersey continental shelf: Implications for erosion and preservation processes acting during latest Pleistocene-Holocene transgression: *J. Sed. Res.*, v. 76, p. 1284-1303, DOI: 10.2110/jsr.2006.108, 2006.
- Bangs, N. L., **Gulick, S. S.**, and Shipley, T. H., 2006, Seamount subduction erosion in the Nankai Trough and its potential impact on the seismogenic zone: *Geology*, v. 34, no. 8, p. 701-704, 2006.
- Morgan, J., Warner, M., Urrutia-Fucugauchi, J., **Gulick, S.**, Christeson, G., Barton, P., Rebolledo-Vieyra, M., and Melosh, J., New Seismic Survey Over Chicxulub Prepares for Future Drilling Into the Crater, EOS, Transactions American Geophysical Union, v. 86, p. 325-328, 2005.
- Gulick, S. P. S.**, Goff, J. A., Austin, J. A., Jr., Alexander, C. R., Jr., Nordfjord, S., and Fulthorpe, C. S., Basal inflection-controlled shelf-edge wedges off New Jersey track sea-level fall: *Geology*, v. 33, no. 5, p. 429-432, 2005.
- Goff, J. A., Austin, J. A., Jr., **Gulick, S.**, Nordfjord, S., Christensen, B., Sommerfield, C., Olson, H., and Alexander, C., Recent and Modern Marine Erosion on the New Jersey Outer Shelf, *Marine Geology*, v. 216, p. 275-296, 2005.
- Goldberg, D., Cheng, A., **Gulick, S.**, Blanch, J., and Byun, J.-M., Velocity analysis of LWD sonic data in turbidites and hemipelagic sediments offshore Japan, ODP sites 1173 and 808, *Proc. Ocean Drilling Prog., Sci. Res.*, v. 190/196, 2005.
- Gulick, S.**, Jaeger, J., Freymueller, J., Koons, P., Pavlis T., and Powell, R. Examining tectonic-climatic interactions in Alaska and the northeast Pacific Ocean, EOS, Transactions American Geophysical Union, v. 85, no. 43, p. 433, 438-439, 2004.
- Gulick, S. P. S.**, and Bangs, N. L. B., Negative-polarity at the frontal thrust, is free gas the culprit?: Insights from Nankai accretionary prism off Cape Muroto using seismic-logging integration, *Proc. Ocean Drilling Prog., Sci. Res.*, v. 190/196, 2004.
- Bangs, N. L. B., and **Gulick, S. P. S.**, Physical properties along the developing décollement in the Nankai Trough: Inferences from 3-D seismic reflection data inversion and Leg 190 and 196 drilling data, *Proc. Ocean Drilling Prog., Sci. Res.*, v. 190/196, 2004.
- Goff, J. A., Kraft, B. J., Mayer, L. A., Schock, S. G., Sommerfield, C. K., Olson, H. C., **Gulick, S. P. S.**, and Nordfjord, S., Seabed characterization on the New Jersey middle and outer shelf: Correlability and spatial variability of seafloor sediment properties, *Mar. Geol.*, 209, 147-172, 2004.
- Gulick, S. P. S.**, Bangs, N. L. B., Shipley, T. H., Nakamura, Y., Moore, G., and Kuramoto, S., 3-D Architecture of the Nankai Accretionary Prism's Imbricate Thrust Zone off Cape Muroto, Japan: Prism Reconstruction via *En Echelon* Thrust Propagation, *Journal of Geophysical Research*, v. 109, B02105, 2004.
- Bangs, N. L. B., Shipley, T. H., Moore, G. F., **Gulick, S. P. S.**, and Nakamura, Y., Evolution of the Nankai Trough Décollement from the Trench into the Seismogenic Zone: Inferences from 3-D Seismic Reflection Imaging, *Geology*, v. 32, p. 273-276, 2004.
- Mikada, H., Kinoshita, M., Becker, K., Davis, E. E., Meldrum, R. D., Flemings, P., **Gulick, S.**, Matsubayashi, O., Morita, S., Goto, S., Misawa, N., Fujino, K., and Toizumi, M., Hydro-geological and geothermal studies around Nankai trough (KR02-10 Nankai Trough Cruise

- Report), JAMSTEC J. Deep Sea Res., 22: 125-171, 2003.
- Gulick, S. P. S.**, and Meltzer, A. S., Effect of the northward migrating Mendocino triple junction on the Eel River forearc basin, California: Structural Evolution, GSA Bulletin, v. 114, p. 1505-1519, 2002.
- Burger, R. L.*, Fulthorpe, C. S., Austin, J. A., and **Gulick, S. P. S.**, Lower Pleistocene to present structural deformation and sequence stratigraphy of the continental shelf, offshore Eel River Basin, northern California, Marine Geology, v. 185, p. 249-281, 2002.
- Gulick, S. P. S.**, Meltzer, A. S., and Clarke, S. H., Jr., Effect of the northward migrating Mendocino triple junction on the Eel River forearc basin, California: Stratigraphic Development, GSA Bulletin, v. 114, p. 178-191, 2002.
- Gulick, S. P. S.**, Meltzer, A. S., Levander, A., and Henstock, T., Internal deformation of the southern Gorda plate: Implications for plate boundary stresses north of the Mendocino triple junction, Geology, v. 29, p. 691-694, 2001.
- Kuramoto, S., Ashi, J., Greinert, J., **Gulick, S.**, Ishimura, T., Morita, S., Nakamura, K., Okada, M., Okamoto, T., Rickert, D., Saito, S., Suess, E., Tsunogai, U., and Tomosugi, T., Surface observations of subduction related mud volcanoes and large thrust sheets in the Nankai subduction margin: Report on YK00-10 and YK01-04 cruises, JAMSTEC Journal of Deep Sea Research, v. 19, pp. 131-139, 2001.
- Moore G. F., Taira, A., Bangs, N. L., Kuramoto, S., Shipley, T. H., Alex, C. M., **Gulick, S. S.**, Hills, D. J., Ike, T., Ito, S., Leslie, S. C., McCutcheon, A. J., Mochizuki, K., Morita, S., Nakamura, Y., Park, J.-O., Taylor, B. L., Toyama, G., Yagi, H., and Zhao, Z. Data Report: Structural setting of the ODP Leg 190 Muroto transect, in Moore, G.F., Taira, A., Klaus, A., et al., *Proc. ODP, Init. Repts.*, 190, p. 1-14 [CD-ROM], 2001.
- Gulick, S. P. S.**, Meltzer, A. S., Clarke, S. H., Jr., and Tréhu, A. M., Seismic study of the southern Cascadia subduction zone and accretionary prism north of the Mendocino triple junction, Journal of Geophysical Research, v. 103, pp. 27207-27222, 1998.
- Tréhu, A. M., Lendl, C., Leitner, B., Meltzer, A., **Gulick, S.**, Holl, J., Levander, A., Henstock, T., Beaudoin, B., Godfrey, N., Hole, J., Klemperer, S., Clarke, S., Luetgert, J., and Mooney, W., Pulling the rug out from under California: Seismic images of the Mendocino triple junction region, EOS, v. 76, no. 38, pp. 369, 380-381, 1995.

Extended Abstracts Published (13)

- Morgan, J., Barton, P., Christeson, G., Gulick, S., Collins, G., Asymmetry of the Chicxulub Crater- Is It Produced by Asymmetry in the Target?, Bridging the Gap II: Effect of Target Properties on the Impact Cratering Process, Abstract 8028, 2007.
- Barton, P. J., **Gulick, S. P. S.**, Morgan, J. V., Urrutia-Fucugauchi, J., Warner, M. R., Christeson, G., Rebolledo-Vieyra, M., New Geophysical Data from the Chicxulub Impact Crater, 40th ESLAB Symposium, First International Conference on Impact Cratering in the Solar System, European Space Agency, Abstract Book, pp. 23-24, 2006.
- Christeson, G. L., **Gulick, S. P. S.**, Morgan, J., Warner, M., Barton, P., Moho Structure Beneath the Chicxulub Impact Crater, 40th ESLAB Symposium, First International Conference on Impact Cratering in the Solar System, European Space Agency, Abstract Book, p. 41, 2006.
- Gulick, S. P. S.**, Christeson, G. L., Morgan, J., Warner, M., Barton, P., Structure of the Multi-Ring Chicxulub Impact Crater: What Fault Patterns Tell Us About Pre-existing Structures,

- Impact Obliquity, and Crater Collapse. 40th ESLAB Symposium, First International Conference on Impact Cratering in the Solar System, European Space Agency, Abstracts, p. 85, 2006.
- McDonald, M.*, **Gulick, S.**, Christeson, G., Mendoza, K., Gorney, D., Barton, P. J., The Terrace Zone Structure of the Chicxulub Impact Crater, Yucatan, Mexico, 40th ESLAB Symposium, First International Conference on Impact Cratering in the Solar System, European Space Agency, Abstracts, p. 139, 2006.
- Mendoza-Cervantes, K.*, **Gulick, S. S.**, Urrutia-Fucugauchi, J., McDonald, M., Christeson, G. L., Barton, P. J., 3-D Image of the Chicxulub Crater Peak Ring Based on 2-D Seismic Reflection Profiles from R/V Maurice Ewing 2005 Survey, 40th ESLAB Symposium, First International Conference on Impact Cratering in the Solar System, European Space Agency, Abstracts, p. 145, 2006.
- Morgan, J., Warner, M., Urrutia-Fucugauchi, J., **Gulick, S.**, Christeson, G., Barton, P., Rebolledo- Vieyra, M., Grieve, R., Structure of Chicxulub: Results from Past Drilling and Targets for Future Drilling, 40th ESLAB Symposium, First International Conference on Impact Cratering in the Solar System, European Space Agency, Abstract Book, p. 153, 2006.
- Surendra, A. T.*, Barton, P. J., Morgan, J., **Gulick, S. P. S.**, Christeson, G. L., 3-D Tomographic Imaging of the Chicxulub Impact Crater, 40th ESLAB Symposium, First International Conference on Impact Cratering in the Solar System, European Space Agency, Abstract Book, p. 211, 2006.
- Gulick, S.**, Mann, P., Christeson, G., van Avendonk, H., Pavlis, T., Jaeger, J., Powell, R., Cowan, E., Geophysical and Geologic Investigations of the Yakutat Terrane Collision, Glacial Erosion, and Marine Deposition, St. Elias Orogen, Southeast Alaska, Lessons in Tectonics, Climate and Eustacy from the Stratigraphic Record in Arc Collision Zones, GSA Penrose Conference Proceedings, 2005.
- Jaeger, J., Powell, R., Cowan, E., **Gulick, S.**, Mann, P., Pavlis, T., Finney, B., Uplift versus Denudation: the Sedimentary Record of Yakutat Terrane Collision and Glacial Erosion in Southeast Alaska, Lessons in Tectonics, Climate and Eustacy from the Stratigraphic Record in Arc Collision Zones, GSA Penrose Conference Proceedings, 2005.
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