



CURRICULUM VITAE: Jose Carlos Borrero. Ph.D.

PERSONAL DETAILS:

Name: Jose Carlos Borrero

Nationality: USA, New Zealand Resident

Profession: Oceanographic Research and Consulting

Contact Details: P: +64 21 343 717

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AREAS OF SPECIALISATION:

Tsunami hazards and analysis, coastal oceanography, hydrodynamic numerical modelling, beach processes, coastal hazards, coastal structure design and impact assessment, multi-purpose reefs, environmental impact assessment, expert witness.

YEARS OF EXPERIENCE:

- Research since 1996 Consulting since 1998

PRESENT POSITIONS:

- Director, Senior Consultant, eCoast Ltd., Raglan, New Zealand
- Adjunct Assistant Research Professor, University of Southern California, Los Angeles, CA, USA

KEY QUALIFICATIONS:

- Ph.D. Ocean and Coastal Engineering, University of Southern California, August 2002
- M.S. Ocean and Coastal Engineering, University of Southern California, May 1997
- B.S. Civil and Environmental Engineering, University of Southern California, December 1995
- B.S. Journalism, Telecommunications Production, University of Florida, May 1993

PROFESSIONAL MEMBERSHIPS:

- American Geophysical Union
- New Zealand Coastal Society (IPENZ)
- PIANC Associate Member
- Technical Advisor for the Surfbreak Protection Society (NZ) and Save the Waves Coalition

WORK HISTORY

2012-Present

Director/Senior Consultant, eCoast Ltd.

2010-2012

Senior Consultant, ASR Ltd - Marine Consulting and Research

2006-2009

Manager, Coastal Science Group, ASR Ltd - Marine Consulting and Research

2006-Present

Adjunct Assistant Professor, University of Southern California.

SUMMARY OF PROFESSIONAL OUTPUT

- 54 published articles in research journals (12 lead author) since 1997.
- 70+ technical and consulting reports since 2006
- 12 post-tsunami reconnaissance surveys (4 as team leader/principal scientist)
- 6 field investigations of near-shore hydrodynamics and/or instrument deployment
- 2 large scale hydraulic physical laboratory experiments
- 5 organized or co-organized international conferences
- 4 co-editorship conference proceedings volume

PEER REVIEWED JOURNAL ARTICLES

2017

- Lane, E., **Borrero, J.**, Whitaker, C., Bind, J., Chagué-Goff, C., Goff, J., Goring, D., Hoyle, J., Mueller, C., Power, W., Reid, C., Williams, J. and Williams, S. (2017) Effects of inundation by the 14th November, 2016 Kaikōura tsunami on Banks Peninsula, Canterbury, New Zealand, Pure and Applied Geophysics, Submitted
- Power, W., Clark, K., Ngaru-King, D., Howarth, J., **Borrero, J.**, Lane, E., Goff, J., Chague-Goff, C., Williams, J., Reid, C., Whittaker, C., Mueller, C., Williams, S., Goring, D., Hughes, M., Hoyle, J., Bind, J., Strong, D., Lichtfield, N., and Benson, A. (2017) , Tsunami runup observations from the 14 November 2016 M7.8 Kaikōura earthquake, New Zealand, Pure and Applied Geophysics, in preparation.

2015

- Borrero, J.C.**, Lynett, P.J. and Kalligeris, N. (2015) Tsunami Currents in Ports, Philosophical Transactions of the Royal Society A ,373: 20140372. <http://dx.doi.org/10.1098/rsta.2014.0372>
- Borrero, J.C.**, Goring, D.G. (2015) South American Tsunamis in Lyttelton Harbor, New Zealand, Pure and Applied Geophysics, 10.1007/s00024-014-1026-1

2014

- Borrero, J.C.**, Goring, D.G., Greer, S.D. and Power, W.L. (2014) Tsunami Hazards in New Zealand Ports, Pure and Applied Geophysics, 10.1007/s00024-014-0987-4
- Erikson, M., Lebreton, L., Carson, H., Thiel, M., Moore, C., **Borrero, J.C.**, Galgani, F., Ryan, P. and Reisser, J. (2014) Plastic Pollution in the World's Oceans: More than 5 Trillion Plastic Pieces Weighing over 250,000 Tons Afloat at Sea, PLoS ONE 9(12): e111913. doi:10.1371/journal.pone.0111913.
- Lynett, P.J., **Borrero, J.C.**, Son, S., Wilson, R.W. and Miller, K. (2014) Assessment of the tsunami-induced current hazard, Geophysical Research Letters, DOI: 10.1002/2013GL058680
- Borrero, J.C.**, Kalligeris, N., Lynett, P.J., Fritz, H.M., Newman, A.V. and Convers, J.A. (2014) Observations and Modeling of the August 27, 2012 Earthquake and Tsunami affecting El Salvador and Nicaragua, Pure and Applied Geophysics, DOI 10.1007/s00024-014-0782-2
- Amanda R. Admire, A., Dengler, L., Crawford, G., Uslu, B., **Borrero, J.C.**, Greer, S. and Wilson, R. (2014) Observed and Modeled Currents from the Tohoku-oki, Japan and other Recent Tsunamis in Northern California, Pure and Applied Geophysics, 10.1007/s00024-014-0797-8.
- A. C. Vetger, M. Barletta, C. Beck, **J. Borrero**, H. Burton, M. L. Campbell, M. F. Costa, M. Eriksen, C. Eriksson, A. Estrades, K. V. K. Gilardi, B. D. Hardesty, J. A. Ivar do Sul, J. L. Lavers, B. Lazar, L. Lebreton, W. J. Nichols, C. A. Ribic, P. G. Ryan, Q. A. Schuyler, S. D. A. Smith, H. Takada, K. A. Townsend, C. C. C. Wabnitz, C. Wilcox, L. C. Young, M. Hamann (2014) Global research priorities for the management and mitigation of plastic pollution on marine wildlife, Endangered Species Research, 25 (p. 225-247), doi: 10.3354/esr00623.

2013

- Borrero, J.C.**, Titov, V.V. and Synolakis, C.E. (2013) Numerical Modeling of Tsunami Effects in Southern California from a Hypothetical M9.1 Earthquake near the Alaska Peninsula, in Ross, S.L., and Jones, L.M., eds., The SAFRR (Science Application for Risk Reduction) Tsunami Scenario: U.S. Geological Survey Open-File Report 2013–1170, 136 p., <http://pubs.usgs.gov/of/2013/1170/d/>.
- Lebreton, L. C.-M. and **Borrero, J.C.** (2013) Modeling the transport and accumulation floating debris generated by the 11 March 2011 Tohoku-oki tsunami, Marine Pollution Bulletin, 66, 53-58 DOI 10.1016/j.marpolbul.2012.11.013
- Borrero, J.**, Bell, R., Csato, C., DeLange, W., Greer, D., Goring, D., Pickett, V. and Power, W. (2013). Observations, Effects and Real Time Assessment of the March 11, 2011 Tohoku-oki Tsunami in New Zealand, Pure and Applied Geophys., 170, 1229-1248, DOI 10.1007/s00024-012-0492-6
- Borrero, J.** and Greer, S.D. (2013) Comparison of the 2010 Chile and 2010 Japan tsunamis in the Far-field, Pure and Applied Geophysics, 170, 1249-1274, DOI 10.1007/s00024-012-0559-4.

2012

- Wilson, R., Admire, A., **Borrero, J.**, Dengler, L., Legg, M., Lynett, P., McCrink, T., Miller, K., Ritchie, A., Sterling, K., and Whitmore, P. (2012) Observations and Impacts from the 2010 Chilean and 2011 Japanese Tsunamis in California (USA), *Pure and Applied Geophysics*, DOI 10.1007/s00024-012-0527-Z.
- Hill, E, **Borrero, J.**, Huang, Z., Qiu, Q., Banerjee, P., Natawidjaja, D., Elosegui, P., Fritz, H., Pranantyo, I., Li, L., Macpherson, K., Skanavis, V., Synolakis, C., and Sieh, K. (2012) The 2010 Mw 7.8 Mentawai earthquake: Very shallow source of a rare tsunami earthquake determined from tsunami field survey and near-field GPS. *Journal of Geophysical Research*, Vol 117, B06402, doi:10.1029/2012JB009159.
- Lebreton, L.C.-M., Greer, S.D. and **Borrero J.**, (2012) Numerical modelling of floating debris in the world's oceans, *Marine Pollution Bulletin* 64, 653–661.
- Lynett, P., **Borrero, J.**, Weiss, R., Son, S., Greer, D., Renteria, W. (2012) Observations and Modeling of Tsunami-Induced Currents in Ports and Harbors, *Earth and Planetary Science Letters*, 327-328 (68-74).

2011

- Okal, E.A. and **Borrero, J.C.** (2011) The "tsunami earthquake" of 22 June 1932 in Manzanillo, Mexico: Seismological study and tsunami simulations, *Geophysical Journal International*, 187, 1443–1459.
- Fritz, H.M., **Borrero, J.C.**, Synolakis, C.E., Okal, E.A., Weiss, R., Titov, V., Jaffee, B., Foteinis, S., Lynett, P., Chan, I., and Liu, P.L-F (2011) Insights on the 2009 South Pacific Tsunami in Samoa and Tonga from Field Surveys and Numerical Simulations, *Earth Sci. Revs.*, 107, 66–75.
- Okal, E.A., **J.C. Borrero**, and C. Chagué-Goff (2011) Tsunamigenic predecessors to the 2009 Samoa earthquake, *Earth Sci. Revs.*, 107, 128 – 140.
- Prasetya, G., **Borrero, J.**, de Lange, W., Black, K., and Healy, T., Modelling of inundation on Banda Aceh, Indonesia during the great Sumatra tsunamis December 26, 2004. (2011) *Natural Hazards*, DOI 10.1007/s11069-010-9710-7.
- Barberopoulou, A., **Borrero, J.C.**, Uslu, B., Legg, M. and Synolakis, C.E. (2011) A Second Generation of Tsunami Inundation Maps for the State of California, *Pure and Applied Geophysics*, DOI10.1007/s00024-011-0293-3
- Prasetya, G., Black, K., de Lange, W., **Borrero, J.** Healy, T. (2011) Debris dispersal modeling for the great Sumatra Tsunamis on Banda Aceh and surrounding waters *Natural Hazards* DOI 10.1007/s11069-011-9903-8

2010

- Okal, E.A., Fritz, H.M., Synolakis, C.E., **Borrero, J.C.**, Weiss, R., Lynett, P., Titov, V.V., Foteinis, S., Jaffe, B.E., Liu, P. L-F and Chan, I-c., Field Survey of the Samoa Tsunami of 29 September 2009, *Seismological Research Letters* 81(4): 577-591
- Borrero, J.C.**, McAdoo, B., Jaffe, B., Dengler, L., Gelfenbaum, G., Higman, B., Hidayat, R., Moore, A., Kongko, W., Lukijanto, Peters, R., Prasetya, G., Titov, V., Yulianto, E. (2010) Field Survey of the March 28, 2005 Nias-Simeulue Earthquake and Tsunami, *Pure and Applied Geophysics* DOI 10.1007/s00024-010-0218-6.

2009

- Borrero, J.C.**, Weiss, R., Okal, E., Hidayat, R., Suranto, Arcas, D., and Titov, V.V., (2009), The Tsunami of September 12, 2007, Bengkulu Province, Sumatra, Indonesia: Post-Tsunami Field Survey and Numerical Modeling, *Geophysical Journal International*, Vol 178, p. 180–194 doi: 10.1111/j.1365-246X.2008.04058.x
- Barberopoulou, A., **Borrero, J.C.**, Kalligeris, N., Goltz, J.D., Wilson, R.I. and Synolakis, C.E. (2009) Unprecedented coverage of the Californian coast promises improved tsunami preparedness. *Eos, Transactions of the American Geophysical Union*, Vol.90, No. 16, p. 137-138.

2008

- Dengler, L.A., Uslu, B., Barberopoulou, A., **Borrero, J.C.**, and Synolakis, C. (2008). The Vulnerability of crescent city, California, to Tsunamis Generated by Earthquakes in the Kuril Islands Region of the Northwestern Pacific, *Seismological Research Letters*, Vol. 79, No. 5, September/October, 2008, 608 – 619.

Fritz, H. M., Kalligeris, N., **Borrero, J.C.**, Broncano, P., and Ortega, E. (2008). 15 August 2007 Peru tsunami runup observations and modeling, *Geophysical Research Letters*, Vol. 35, L10604, doi:10.1029/2008GL033494, 2008.

2007

Uslu, B., **Borrero, J.C.**, Dengler, L., and Synolakis, C.E. (2007). Tsunami Inundation at Crescent City, California generated by earthquakes on the Cascadia Subduction Zone. *Geophysical Research Letters*, Vol. 34, L20601.

Mead, S.T., **Borrero, J.C.**, Black, K.P., Anderson, K. (2007). Multi-Faceted Beach Management at St. Francis Bay Beach, South Africa, *Shore and Beach*, V 75 (4): 43 – 54.

B.G McAdoo, Richardson N., and **Borrero J.C.** (2007). Inundation distances and run-up measurements from ASTER, QuickBird and SRTM data, Aceh coast, Indonesia. *International Journal of Remote Sensing* V28, No. 13-14, July 2007.

Satake, K., E.A. Okal, and **J.C. Borrero** (2007), Tsunami and its hazard in the Indian and Pacific Oceans: Introduction to the topical issue, *Pure Appl. Geophys.*, 164, 249-259, 2007.

2006

Borrero, J., Sieh, K., Chlieh, M. and Synolakis, C.E. (2006), Tsunami Inundation Modeling for Western Sumatra, *Proceedings of the National Academy of Science*, V. 103, No. 52, p. 19673 – 19677.

Okal, E., **Borrero, J.** and Synolakis, C. (2006) Evaluation of Tsunami Risk from Regional Earthquakes at Pisco, Peru. *Bulletin of the Seismological Society of America* 96, 1634-1648.

Borrero, J.C., C.E. Synolakis, H.M Fritz (2006) Northern Sumatra Field Survey after the December 2004 Great Sumatra Earthquake and Indian Ocean Tsunami, *Earthquake Spectra*, V 22, S3, June 2006, S93 – S104.

Jaffe, B. **Borrero, J.**, Prasetya, G. Peters, R. McAdoo, B., Gelfenbaum, G., Morton, R. Ruggiero, P. Higman, B., Dengler, L., Hidayat, R., Kingsley, E., Kongko, W., Lukijanto, Moore, A. (2006) Northwest Sumatra and Offshore Islands Field Survey after the December 2004 Indian Ocean Tsunami, *Earthquake Spectra*, V 22, S3, June 2006, S105 – S135.

H.M. Fritz and **J.C. Borrero** (2006) Somalia Field Survey after the December 2004 Indian Ocean Tsunami, *Earthquake Spectra*, V 22, S3, June 2006, S219 – S233.

Fritz, H. M., **J. C. Borrero**, C. E. Synolakis, and J. Yoo (2006), 2004 Indian Ocean tsunami flow velocity measurements from survivor videos, *Geophys. Res. Lett.*, 33, L24605, doi:10.1029/2006GL026784.

2005

Borrero, J.C. (2005). Field Data and Satellite Imagery of Tsunami Effects in Banda Aceh, *Science*, V. 308, p. June 10, 2005.

Borrero, J.C. (2005). Field Survey of Northern Sumatra and Banda Aceh, Indonesia after the Tsunami and Earthquake of 26 December 2004, *Seismological Research Letters* V. 74, No. 3, 309 – 317, May/June 2005.

Liu, P. L.-F. and Wu, T.-R. and Raichlen, F. and Synolakis, C. E. and **Borrero, J. C.** (2005) Runup and rundown generated by three-dimensional sliding masses. *Journal of Fluid Mechanics*, 536 (1). pp. 107-144. ISSN 0022-1120.

2004

Borrero, J.C., Legg, M.R., and Synolakis (2004). C.E., Nearshore Tsunami Sources in Southern California, *Geophysical Research Letters*. Vol 31, July 2004.

Legg, M.R., **J.C. Borrero**, C.E. Synolakis (2004). Tsunami Hazards from the Catalina Fault Offshore Southern California, *Earthquake Spectra*, Vol. 20, No. 3, p. 917 – 950, August 2004.

Okal, E.A., **J.C. Borrero**, and C.E. Synolakis (2004). The earthquake and tsunami of 17 November 1865: Evidence for farfield tsunami hazard from Tonga. *Geology and Geophysics International*, V.157, 164-174, 2004.

2003

Lynett, P.J., **J.C. Borrero**, P.L.-F. Liu, and C.E. Synolakis (2003). Field Survey and Numerical Simulations: A Review of the 1998 Papua New Guinea Earthquake and Tsunami. *Pure and Applied Geophysics*, V. 160, no. 10-11, pp. 2119 – 2146, October 2003.

Borrero, J.C., J. Bu, C. Saiang, B. Uslu, J. Freckman, B. Gomer, E.A. Okal, and C.E. Synolakis (2003). Field survey and preliminary modeling of the Wewak, Papua New Guinea earthquake and tsunami of September 9, 2002, *Seismological Research Letters*, V. 74, No.4, pp.393 – 405, July/August 2003.
Okal, E.A., G. Plafker, C.E. Synolakis, and **J.C. Borrero** (2003). Near-field survey of the 1946 Aleutian tsunami on Unimak and Sanak Islands, *Bull. Seismol. Soc. Amer.*, V. 93, No. 3, pp. 1226 – 1234, June 2003.

2002

Okal, E.A., L. Dengler, S. Araya, **J.C. Borrero**, B. Gomer, S. Koshimura, G. Laos, D. Olcese, M. Ortiz, M. Swensson, V.V. Titov, and F. Vegas (2002), A field survey of the Camaná, Peru tsunami of June 23, 2001, *Seismological Research Letters*, 73, 904-917, 2002.
Okal, E.A., C.E. Synolakis, G.J. Fryer, P. Heinrich, **J.C. Borrero**, C. Ruscher, D. Arcas, G. Guille, and D. Rousseau, A field survey of the 1946 Aleutian tsunami in the far field, *Seismological Research Letters*, 73, 490-503, 2002.
Okal, E.A., G.J. Fryer, **J.C. Borrero**, and C. Ruscher (2002). The landslide and local tsunami of 13 September 1999 on Fatu-Hiva (Marquesas Islands; French Polynesia), *Bull. Soc. Géol. France*, 173, 359-367, 2002.
Synolakis, C.E., J.-P. Bardet, **J.C. Borrero**, H.L. Davies, E.A. Okal, E.A. Silver, S. Sweet, and D.R. Tappin (2002). The slump origin of the 1998 Papua New Guinea tsunami, *Proceedings of the Royal Society (London)*, Ser. A, 458, 763-789, 2002.

2001

Borrero, J.C., Dolan, J., Synolakis, C.E., (2001) Tsunami Sources Within the Eastern Santa Barbara Channel, *Geophysical Research Letters*, V. 28 (4), 643-647.

1999

Kawata, Y., B. Benson, **J.C. Borrero**, J.L. Borrero, H.L. Davies, W.P. deLange, F. Imamura, H. Letz, J. Nott, and C.E. Synolakis (1999) Tsunami in Papua New Guinea was as Intense as First Thought, *Eos, Transactions of the American Geophysical Union*, Cover Article, V. 80, # 9, March 2, 1999.

1997

Borrero J.C., Titov, V., Ortiz, M. and Synolakis, C. E., (1997) Mexican Earthquake Generates Tsunami, New Data and Unusual Photos, *Eos, Transactions of the American Geophysical Union*, Cover Article, Vol. 78, # 8, Feb. 25, 1997.

FULL LENGTH CONFERENCE PAPERS AND BOOK CHAPTERS

2017

Borrero, J. (2017) Assessment of Tsunami Heights and Currents in Indian Ocean Ports, Proceedings of Coasts and Ports Conference, Cairns, Australia, June, 2017

2015

Borrero, J.C., LeVeque, R.J., S. Dougal Greer, Sam O'Neill and Brisa N. Davis (2015) Observations and Modelling of Tsunami Currents at the Port of Tauranga, New Zealand, Proceedings of Coasts and Ports Conference, Auckland, New Zealand, September, 2015.
Rabinovich, A.B., Geist E.L., Fritz, H.M., and **Borrero, J.C.** (2015), Tsunami Science: Ten Years after the 2004 Indian Ocean Tsunami Volume I. Pure Appl. Geophys., 172 (3), Topical Issue.

2014

Rabinovich, A.B., **Borrero, J.C.** and Fritz, H.M. (2014), Tsunamis in the Pacific Ocean: 2010-2011. Pure Appl. Geophys., 171 (12), Topical Issue.

2013

- Satake K., Rabinovich, A.B., Dominey-Howes, D., and **Borrero, J.C.** (2013a), Historical and Recent Catastrophic Tsunamis in the World: Past, Present, and Future. Volume I: The 2011 Tohoku Tsunami. *Pure Appl. Geophys.*, 170 (6-8), Topical Issue.
- Satake K., Rabinovich, A.B., Dominey-Howes, D., and **Borrero, J.C.** (2013b), Historical and Recent Catastrophic Tsunamis in the World: Past, Present, and Future. Volume II: Tsunamis from 1755 to 2010. *Pure Appl. Geophys.*, 170 (9-10), Topical Issue.
- Borrero, J.C.**, Goring, D.G., Greer, S.D., Power, W.L. and Barberopoulou, A. (2013) Understanding Tsunami Hazards in New Zealand Ports and Harbours, *Proceedings of Coasts and Ports 2013*, Manly, Australia, September 2013.
- Porter, KA, L Jones, S Ross, J Borrero, J Bwarie, D Dykstra, EL Geist, L Johnson, S Kirby, K Long, P Lynett, K Miller, C Mortensen, S Perry, G Plumlee, C Real, L Ritchie, HK Thio, A Wein, P Whitmore, R Wilson, N Wood, 2013. USGS Science Application for Risk Reduction's Next Wave Tsunami Scenario. Paper 79, *Proc COPRI Ports '13*, Seattle Washington, Aug 25-29, 2013
- Lynett, P., Borrero, J., Wilson, R. and Miller, K. (2013) Detailed Simulation of Tsunami-Induced Currents in California Ports and Harbors, *Proc COPRI Ports '13*, Seattle Washington, Aug 25-29, 2013
- Borrero, J.C. (2013) Tsunami, in *Encyclopedia of Marine Geosciences*, Harff, J.; Meschede, M.; Petersen, S.; Thiede, J. (Eds.) 2015, 1000 p. 440 illus., 140 illus. in color (Due in 2015).

2011

- Borrero, J.C.**, Greer, S.D., Lebreton, L. and Fritz, H.M. (2011) Field Surveys and Numerical Modelling of the 2009 South Pacific and 2010 Mentawai Islands Tsunamis, *Proceedings of Coasts and Ports Conference*, Perth, Australia, September 28-30, 2011.
- Mead, S.T. and **Borrero, J.C.**, (2011), Multi-Purpose Reefs: A Decade of Applications *Proceedings of Coasts and Ports Conference*, Perth, Australia, September 28-30, 2011.

2010

- Prasetya, G., **Borrero, J.C.**, (2010) Modelling a General Distribution of Suspended Materials and Flotsam Throughout the Affected Regions in Banda Aceh During the 26 December 2004 Tsunami Event, *Proceedings of the Indian Ocean Tsunami Modelling Symposium*, Fremantle, Australia, 12-15 October 2010.
- Borrero, J.C.**, Mead, S.T., and Moores, A. (2010) Stability Considerations for Structures Constructed from Large, Sand Filled Geotextile Containers, *Proceedings of the 32nd International Conference on Coastal Engineering (ICCE)*, Shanghai, China, July 2010.
- Mead, S.T., Bleinkinsopp, C., Moores, A., and **Borrero, J.C.** (2010) Design and Construction of the Boscombe Multipurpose Reef, *Proceedings of the 32nd International Conference on Coastal Engineering (ICCE)*, Shanghai, China, July 2010.
- Mead, S.T., Black, K.P. and **Borrero, J.C.**, (2010) Design and Construction of the Boscombe Reef, *Proceedings of Coastal Structure*, Institute of Civil Engineers Conference, Edinburgh, Scotland, September 2009.

2009

- Phillips, D., Mead, S., Harrison, S., Frazerhurst, J., Dodet, G., Klinginger, C., and **Borrero, J.**, (2009) Oceanography in the Public Interest: Tales from Raglan, *Proceedings of the 20th Australasian Port and Harbour Conference*, Wellington New Zealand
- Harrison, S., **Borrero, J.**, Klinginger, C., Mead, S., Phillips, D. (2009) Hydrodynamic Modelling of Whaingaroa Harbour *Proceedings of the 20th Australasian Port and Harbour Conference*, Wellington New Zealand

2008

- Uslu, B., **Borrero, J.C.**, Dengler, L., Synolakis, C., Barberopoulou, A. (2008). "Tsunami Inundation from Great Earthquakes on the Cascadia Subduction Zone Along the Northern California Coast" in: Wallendorf, L. (ed) *Solutions to Coastal Disasters 2008 Tsunamis: Proceedings of sessions of the conference, April 13 – 16, 2008: Oahu, Hawaii*.
- Chawla A., **Borrero, J.C.** and Titov, V.V. (2008) "Evaluating wave propagation and inundation model characteristics of the MOST tsunami model over a complex 3D beach" in Liu, P. L-F., Yeh, H. and

Synolakis, C. (eds.) *Advanced Numerical Models for Simulating Tsunami Waves and Runup* World Scientific, 344 pages, 2008.

2007

Satake, K., Okal, E.A. and **Borrero, J.C.** (2007), Tsunami and its hazards in the Indian and Pacific oceans, *Pure Appl. Geophys.*, 164, Topical Issue.

J.C. Borrero, C. Bosserelle, G. Prasetya and K.P. Black (2007). "Using 3DD to model tsunami inundation" *Proceedings of Coasts and Ports 2007*.

J.C. Borrero, D. Goring, C. Bosserelle and K.P. Black (2007). "Observations and modelling of the May 4, 2006 Tonga tsunami in New Zealand", *Proceedings of Coasts and Ports 2007*

2006

Borrero, J.C., B. Uslu, C.E. Synolakis, and V.V. Titov (2006) Modeling Far-Field Tsunamis for California Ports and Harbors, *Proceedings of the 30th International Conference on Coastal Engineering*, San Diego, CA September 2006.

Synolakis, C.E., **Borrero, J.C.**, Fritz, H., Titov, V., Okal, E. (2006). Inundation During the 26 December 2004 Tsunami, *Proceedings of the 30th International Conference on Coastal Engineering*, San Diego, CA September 2006.

2005

J.C. Borrero, J. Moore, S. Cho, and C.E. Synolakis "Natural Disasters and California: The Regional Economic Cost of a Tsunami Wave Generated by the Palos Verdes Slide," *Infrastructure Risk Management Processes: Natural, Accidental, and Deliberate Hazards*, ASCE Council on Disaster Risk Management Monograph No. 1, May, 2005, edited by Craig Taylor and Erik VanMarcke (2006): 67-94. Presented at the Workshop on Acceptable Risk Processes for Natural and Manmade Hazards Affecting Lifelines, American Society of Civil Engineers Technical Council on Lifeline Earthquake Engineering Sixth U.S. Conference and Workshop on Lifeline Earthquake Engineering, Long Beach, August 10-13, 2003; and the 2005 Annual ASCE Civil Engineering Conference Next Generation Infrastructure: Projects that Create the Future, Los Angeles, October 27- 29, 2005.

2004

Borrero J.C., A.C. Yalciner, U. Kanoglu, V. Titov, D. McCarthy, and C.E. Synolakis (2003) Producing Tsunami Inundation Maps: The California Experience. *Submarine Landslides and Tsunamis* Yalciner, Pelinovsky, Okal and Synolakis (eds), NATO Science Series IV: Earth and Environmental Sciences – Vol. 21, Kluwer Academic Press.

2003

Dengler, L., **J. Borrero**, G. Gelfenbaum, B. Jaffe, E. Okal, M. Ortiz, and V. Titov, Tsunami, in: Southern Peru earthquake of 23 June 2001, Reconnaissance Report, Edited by A. Rodriguez-Marek and C. Edwards, *Earthquake Spectra*, 19, Supp. A., 115-144, 2003.

Borrero, J.C. and Nelsen, C. (2003) Results of a comprehensive monitoring program at Pratte's Reef, *Proceedings of the 3rd International Surfing Reef Symposium*, Raglan New Zealand.

2002

Borrero, J.C. for the ITST, Field survey of the June 23, 2001 earthquake and tsunami in Southern Peru, in: *Solutions to Coastal Disasters '02*, Ed. By L. Ewing and L. Wallendorf Amer. Soc. Civil Eng., pp. 892 – 904, 2002.

Okal, E.A., **J.C. Borrero**, and C.E Synolakis, Solving the puzzle of the 1998 Papua New Guinea tsunami: The case for a slump, in: *Solutions to Coastal Disasters '02*, Ed. by L. Wallendorf and L. Ewing, Amer. Soc. Civil Eng., pp. 863-877, 2002.

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Tsunami Field Survey – Team member, reconnaissance survey of the November, 2016 Earthquake and tsunami in New Zealand (November 2016).

Instrument Deployment, Retrieval and Site Surveys –North East Point, Mahe Island, Seychelles (January, 2016, September 2016).

Instrument Deployment, Retrieval and Bathymetric Surveys – Mon Choisy and Rivere des Galets, Mauritius. Programming and deployment of Aquadopp current meters and pressure sensors (September, 2014).

Tsunami Field Survey – Team leader, reconnaissance survey of the August, 2012 Earthquake and tsunami in El Salvador.

Tsunami Field Survey – Team leader, reconnaissance survey of the October 25, 2010 Earthquake and tsunami in the Mentawai Islands, Sumatra, Indonesia.

Tsunami Field Survey of the September 2009 Earthquake and Tsunami in Samoa and American Samoa (September 2009).

Instrument Deployment – Uitoe, New Caledonia. Programming and deployment of Aquadopp current meters and pressure sensors (January, 2009).

Field Data Collection – Orewa, New Zealand. Deployment and retrieval of surf-zone sled for surf zone current velocity measurements (February 2008).

Tsunami Field Survey of the September 2007 Earthquake and Tsunami in Bengkulu, Sumatra, Indonesia (September 2007).

Instrument Retrieval – Chamela Bay, Mexico. SCUBA retrieval of Aquadopp Current meter and frame (March, 2007).

Tsunami Field Survey of the March 28, 2005 Earthquake and Tsunami in Nias, Sumatra, Indonesia (April 2005).

Tsunami Field Survey of the December 26, 2004 Earthquake and Tsunami in Aceh, Sumatra, Indonesia. Includes extensive surveys of Banda Aceh (January 2005, March 2005, April 2005)

Tsunami Field Survey of the December 26, 2004 Earthquake and Tsunami Along the Northeast Coast of Somalia (March 2005).

Field Survey of tsunami deposits from the September 1992 Nicaraguan tsunami (March 2003).

Tsunami field survey – Leader of the International Tsunami Survey Team (ITST) after the September 9, 2002 earthquake and tsunami in Wewak Papua New Guinea (September 2002).

Tsunami field survey – Member of the International Tsunami Survey Team (ITST) after the June, 2001 Tsunami in Camana, Peru (June 2001).

Bathymetric Surveying and Monitoring – Regular profiling and collection of high-resolution bathymetry offshore of Dockweiler State Beach, El Segundo, CA. Project is in conjunction with the construction of an artificial surfing reef (2001/2002).

Tsunami field survey – Member of the International Tsunami Survey Team (ITST) after the September, 1999 Tsunami on Fatu Hiva Island in French Polynesia.

Tsunami field survey - Joined the ITST after the August, 1999 Izmit Bay, Turkey Earthquake and Tsunami.

Tsunami field survey - Joined the ITST after the July 17,1998 Papua New Guinea Tsunami and Earthquake.

Tsunami field survey - Joined the ITST after the February 17,1996 Biak, Irian Jaya, Indonesia Tsunami.

Tsunami field survey - Led USC's expedition to Manzanillo Mexico after tsunami and earthquake of October 1995.

Field Investigation - Participated in a joint USC/ US Army Corps of Engineers survey to Nicaragua to perform detailed mapping of nearshore bathymetry for use in numerical models, March 1995.

Technical Advisory Committee – Junior member of advisory committee overseeing design and construction of Pratte's Reef, America's first artificial surfing reef, El Segundo, California (1999-2000).