

Curriculum Vitae (December, 2017)

John Edward Ebel

Born - January 19, 1954  
Clark AFB, Philippine Islands  
Citizenship - United States  
Married to Martha Elizabeth (Bouey) Ebel - 2 children

Education:

A. B. Harvard, 1975 (Physics)  
Ph.D. California Institute of Technology, 1981 (Geophysics)

Professional Experience:

Earl Anthony Graduate Fellowship	CALTECH, 1975-1976
Graduate Research Assistantship	CALTECH, 1976-Oct. 1980
Research Fellow	CALTECH, Oct. to Dec. 1980
Asst. Professor of Geophysics, Boston College	January 1981 to 1986
Assoc. Professor of Geophysics, Boston College	1986 to 1994
Professor of Geophysics, Boston College	1994 to present
Assistant Director, Weston Observatory	January 1981 to 1993
Director, Weston Observatory	1993 to 2013
Senior Research Scientist, Weston Observatory	2013 to present
Chairman, Dept. of Earth & Env. Sciences	2013 to 2016
NATO Postdoctoral Fellow, University of Karlsruhe, West Germany	1986-1987
Member of Seismic Risk Analysis Subcommittee of Massachusetts Civil Defense Agency Earthquake Project Advisory Committee	1981 to 1990
Member of Metropolitan Boston Earthquake Loss Study Evaluation and Selection Committee	1984 to 1990
Representative for Boston College, Incorporated Research Institutions in Seismology	1985 to present
Member of New England Seismic Advisory Council (NESAC)	1985 to 1991
Chairman	1988 to 1991
Member of Technical Subcommittee 1, Seismic Hazard Mapping, Building Seismic Safety Council	1989 to 1994
Secretary, Eastern Section of the Seismological Society of America	1989 to 1991
Vice-Chairman, Eastern Section of the Seismological Society of America	1991 to 1993
Chairman, Eastern Section of the Seismological Society of America	1993 to 1995
Member of Executive Committee, Eastern Section of the Seismological Society of America	1995 to 1997
Member, Publication Committee, Seismological Society of America	1992 to 2010
Chairman	2003 to 2010
Member, Seismic Hazard Assessment Panel, National Research Council	1992 to 1996
Seismology Section, Spring Meeting Chairman, American	

Geophysical Union	1990 to 1992
Member, New York State Low-Level Radioactive Waste Disposal Panel, National Research Council	1993 to 1996
Editor in Chief, <u>Seismological Research Letters</u>	1994 to 2001
Member, Board of Directors, Seismological Society of America	2000 to 2007
Secretary, Seismology Section, American Geophysical Union	2004 to 2006
Member, Editorial Committee, Journal of Seismology	2004
Member, Editorial Advisory Board, EOS, Transactions of The American Geophysical Union	2008 to 2010
Historical Seismologist Editor, <u>Seismological Research Letters</u>	2008 to present
Member, Peer Review Panel, U.S. National Seismic Hazard Maps	2008
Member, Participatory Peer Review Panel, NGA-East Project	2010 to present
Visiting Scientist, University of Strasbourg, France	2017

Awards:

NATO Postdoctoral Fellow, University of Karlsruhe, Germany	1986-1987
JSA Award for Contributions in Observational Seismology, presented by the Eastern Section of the Seismological Society of America	2003
Distinguished Service to the SSA, presented by the Seismological Society of America	2004
Fellow, Geological Society of America	2015

Professional Societies:

Seismological Society of America  
 Eastern Section, Seismological Society of America  
 American Geophysical Union  
 Geological Society of America  
 Earthquake Engineering Research Institute (affiliate member)

Publications:

Books:

Guidoboni, E., and J.E. Ebel, Earthquakes and Tsunamis in the Past: A Guide to Techniques in Historical Seismology, Cambridge University Press, Cambridge, England, 550 pp., 2009.

Peer Reviewed Articles in Scientific Journals (chronological from most recent):

Ebel, J.E., and J.C. Starr, A geophysical and field survey in central New Hampshire to search for the source region of the 1638 earthquake, submitted to Seism. Res. Lett., 2017.

Monecke, K., F.G. McCarthy, B. Hubeny, J.E. Ebel, D.J. Brabander, S. Kielb, E. Howey, G. Janigian, and J. Pentesco, The 1755 Cape Ann earthquake recorded in lake sediments of eastern New England – an interdisciplinary paleoseismic approach, Seism. Res. Lett., accepted for publication pending revisions, 2017.

Napoli, V.J., and J.E. Ebel, Relative location analysis and moment tensor inversion of the 2012 Gulf of Maine Earthquake Swarm, Seism. Res. Lett., 89 in press,

<https://doi.org/10.1785/0220170131>, 2017.

- Yilar, E., L.G. Baise and J.E. Ebel, Using H/V Measurements to determine depth to bedrock and  $V_{s30}$  in Boston, Massachusetts, Engineering Geology, 217, 12-22, <http://dx.doi.org/10.1016/j.enggeo.2016.12.002>, 2017.
- Ebel, J.E., and D.W. Chambers, Using the locations of  $M \geq 4$  earthquakes to delineate the extents of the ruptures of past major earthquakes, Geophys. J. Int., 207 (2): 862-875, doi: 10.1093/gji/ggw312, 2016.
- Ebel, J.E., An Enigmatic Little Earthquake Swarm near Searsport, Maine, Seism. Res. Lett., 87, 207-214, doi: 10.1785/0220150167, 2016.
- Ebel, J.E., Comment on "Aftershock Statistics for Earthquakes in the St. Lawrence Valley" by Azadeh Fereidoni and Gail M. Atkinson, Seism. Res. Lett., 87, 149-151, doi: 10.1785/0220150120, 2016.
- Quiros, D.A., A. Cabolova, L.D. Brown, C. Chen, J.E. Ebel and J. Starr, Aftershock Imaging with Dense Arrays (AIDA) Following the Mw 4.0 Waterboro Earthquake of 16 October 2012 Maine, USA, Seism. Res. Lett., 86, 1032-1039, 2015.
- Ebel, J.E., Reply to "Comment on 'A New Analysis of the Magnitude of the February 1663 Earthquake at Charlevoix, Quebec' by John E. Ebel" by Alan Ruffman, Bull. Seism. Soc. Am., v. 103, p. 2897, doi:10.1785/0120130149, 2013.
- Ebel, J.E., M. Dupuy and W.H. Bakun, Assessing the Location and Magnitude of the 20 October 1870 Charlevoix, Quebec Earthquake, Bull. Seism. Soc. Am., 103, 589-594, doi: 10.1785/0120110063, 2013.
- Chambers, D.W., J.A. Baglivo, J.E. Ebel, and A.L. Kafka, Earthquake Forecasting Using Hidden Markov Models, Pure and Applied Geophysics, DOI 10.1007/s00024-011-0315-1, 2012.
- Kafka, A.L., and J.E. Ebel, Proximity to Past Earthquakes as a Least-Astonishing Hypothesis for Forecasting the Locations of Future Earthquakes, Bull. Seism. Soc. Am., 101, 1618-1629, doi: 10.1785/0120090164, 2011.
- Ebel, J.E., A New Analysis of the Magnitude of the February 1663 Earthquake at Charlevoix, Quebec, Bull. Seism. Soc. Am., 101, 1024-1038, doi: 10.1785/0120100190, 2011.
- Cicerone, R.D., J.E. Ebel, and J. Britton, A Systematic Compilation of Earthquake Precursors, Tectonophysics, vol. 476, pp. 371-396, doi 10.1016/j.tecto.2009.06.008, 2009.
- Ebel, J.E., Analysis of Aftershock and Foreshock Activity in Stable Continental Regions: Implications for Aftershock Forecasting and the Hazard of Strong Earthquakes, Seismological Research Letters, vol. 80, no. 6, pp. 977-983, 2009.
- Ebel, J.E., A.M. Moulis, D. Smith and M. Hagerty, The 2006-2007 Earthquake Sequence at Bar Harbor, Maine, Seism. Res. Lett., 79, 457-468, 2008.
- Ebel, John E., Chambers, Daniel W., Kafka, Alan L., Baglivo, Jenny A., Non-Poissonian Earthquake Clustering and the Hidden Markov Model as Bases for Earthquake Forecasting in California, Seism. Res. Lett., 78, 47-55, 2007.

- Kafka, A. L., and Ebel, J. E. Exaggerated Claims About Earthquake Predictions: “Amazing Success” or “Remarkably Unremarkable”?, EOS, Transactions, American Geophysical Union, vol. 88, no. 1, pp. 1&6, 2007.
- Ebel, J.E., The Cape Ann, Massachusetts Earthquake of 1755: A 250<sup>th</sup> Anniversary Perspective, Seism. Res. Lett., 77, pp. 74-86, 2006.
- Kafka, A. L., Ebel, J. E., Barnett, G.M., Macherides-Moulis, A., Campbell, L., and Gordon, S., Classroom Seismographs and the Challenge of Encouraging a Culture of Scientific Inquiry in K-12 Schools, Seism. Res. Lett., 77, 734-738, 2006.
- Ebel, J.E., and D.J. Wald, Bayesian Estimations of Peak Ground Acceleration and 5% Damped Spectral Acceleration from Modified Mercalli Intensity Data, Earthquake Spectra, 19, 511-529, 2003.
- Ebel, J.E., and Kafka A.L., A Non-Poissonian Element in the Seismicity of the Northeastern United States, Bull. Seism. Soc. Am., 92, 2040-2046, 2002.
- Ebel, J.E. and M.T. Tuttle, Earthquakes in the Eastern Great Lakes Basin from a regional perspective, Tectonophysics, 353, 17-30, 2002.
- Ebel, J.E. and Hart, K.A., Observational Evidence for Amplification of Earthquake Ground Motions in Boston and Vicinity, Civil Engineering Practice, 16, no. 2, 5-16, 2001.
- Hayles, K.E., Ebel, J.E. and Urzua, A., Microtremor Measurements to Obtain Resonant Frequencies and Ground Shaking Amplification for Soil Sites in Boston, Civil Engineering Practice, 16, no. 2, 17-36, 2001.
- Ebel, J.E., A Reanalysis of the 1727 Earthquake at Newbury, Massachusetts, Seism. Res. Lett., 71, 364-374, 2000.
- Ebel, J.E., K.-P. Bonjer and M.C. Oncescu, Paleoseismicity: Seismicity Evidence for Past Large Earthquakes, Seism. Res. Lett., 71, 283-294, 2000.
- Gendron, P., J. Ebel, and D. Manolakis, Rapid Joint Detection and Classification with Wavelet Bases via Bayes Theorem, Bull. Seism. Soc. Am., 90, 764-774, 2000.
- Ebel, J.E., and Kafka A.L., A Monte Carlo Approach to Seismic Hazard Analysis, Bull. Seism. Soc. Am., 89, 854-866, 1999.
- Ebel, J.E. and J.A. Spotila, Modern Earthquake Activity and the Norumbega Fault, in Ludman, A. and West, D.P., Jr., Norumbega Fault System of the Northern Appalachians; The Geological Society of America Special Paper 331, 195-202, 1999.
- Mangino, S., Priestley, K. and Ebel, J., The Receiver Structure beneath the China Digital Seismograph Network Stations, Bull. Seism. Soc. Am., 89, 1053-1076, 1999.
- Ebel, J.E., The Seventeenth Century Seismicity of Northeastern North America, Seism. Res. Lett., 67, No. 3, pp. 51-68, 1996.

- Feng, Q. and J.E. Ebel, Determination of Rupture Duration and Stress Drop for Earthquakes in New England, Seism. Res. Lett., 67, No. 1, 38-51, 1996.
- Kozák, J. and J.E. Ebel, Macroseismic Information from Historic Pictorial Sources, Pure and Applied Geophysics, 146, 103-111, 1996.
- Zhu, H. and J.E. Ebel, Tomographic Inversion for the Seismic Velocity Structure Beneath Northern New England Using Seismic Refraction Data, J. Geophys. Res., 99, 15,331-15,357, 1994.
- Ebel, J.E., The  $M_{lg}(f)$  Magnitude Scale: A Proposal for its use for Northeastern North America, Seis. Res. Lett., 65, No. 2, pp. 157-166, 1994.
- Doll, W.E., C.D. Rea, J.E. Ebel, S.J. Craven, and J.J. Cipar, Analysis of Shallow Microearthquakes in the South Sebect Seismic Zone, Maine, 1989-1990, Seism. Res. Lett., 63, 557-566, 1992.
- Ebel, J.E., and Kafka, A.L., Earthquake Activity in the Northeastern United States, in Neotectonics of North America, D.B. Slemmons, E.R. Engdahl, M.D. Zoback, and D.D. Blackwell, The Geological Society of America, Decade Map, Volume 1, 277-290, 1991.
- Zhao, X. and J.E. Ebel, Radiation Pattern of Crustal Phases of New England Earthquakes, Geophys. J. Int., 106, 647-655, 1991.
- Ebel, J.E., and K.-P. Bonjer, Moment Tensor Inversion of Small Earthquakes in Southwestern Germany for the Fault Plane Solution, Geophys. J. Int., v.101, 133-146, 1990.
- Ebel, J.E., A Comparison of the 1981, 1982, 1986 and 1987-1988 Microearthquake Swarms at Moodus, Connecticut, Seism. Res. Lett., 60, p. 177-183, 1989.
- Ebel, J.E., The Seismicity of Maine, in Neotectonics of Maine, W. Thompson, ed., Maine State Geological Survey, p. 219-228, 1989.
- Ebel, J.E., The Effect of Crustal Scattering on Observed High-Frequency Earthquake Seismograms, Geophys. J. Int., 98, 329-341, 1989.
- Ebel, J.E. and Bouck, B.R., Spatial and Temporal Variations of Earthquake Focal Mechanisms in New England and Adjacent Areas, Seism. Res. Lett., 59, 183-187, 1988.
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- Ebel, J.E., P.G. Somerville and J.D. McIver, A Study of the Source Parameters of Some Large Earthquakes of Northeastern North America, J. Geophys. Res., 91, 8231-8247, 1986.
- Brown, E. and Ebel, J.E., An Investigation of the January 1982 Gaza, New Hampshire Aftershock Sequence, Earthquake Notes, 56, 125-133, 1985.
- Ebel, J.E., Statistical Aspects of the Recent Seismicity in New England and Implications for Past and Future Activity, Bull Seism. Soc. Am., 74, 1311-1329, 1984.

- Ebel, John E., A Detailed Study of the Aftershocks of the  $M_c = 4.0$  Earthquake near Bath, Maine, Earthquake Notes, 54, 27-40, 1983.
- Ebel, J.E. and J.P. McCaffery, S.J., Hypocentral Parameters and Focal Mechanism of the 1983 Earthquake near Dixfield, Maine, Earthquake Notes, 55, 21-24, 1984.
- Ebel, J.E.,  $M_L$  Measurements for Northeastern United States Earthquakes, Bull. Seism. Soc. Am., 72, 1367-1378, 1982.
- Ebel, J.E., Vudler, V. and Celata, M., The 1981 Microearthquake Swarm near Moodus, Connecticut, Geophys. Res. Lett., 9, 397-400, 1982.
- Ebel, J.E. and Helmberger, D.V., P-Wave Complexity and Fault Asperities: The Borrego Mountain, California Earthquake of April 9, 1968, Bull. Seism. Soc. Am., 72, 413-437, 1982.
- Wallace, T.C., Helmberger, D.V., and Ebel, J.E., A Broadband Study of the August 13, 1978 Santa Barbara Earthquake, Bull. Seis. Soc. Am., 71, 1701-1718, 1981.
- Ebel, J.E., Source Processes of the 1965 New Herbrides Islands Earth Inferred from Teleseismic Waveforms, Geophys. J.R. astr. Soc., 63, 381-403, 1980.
- Ebel, J.E., Burdick, L.J., and Stewart, G.S., The Source Mechanism of the August 7, 1966 El Golfo Earthquake, Bull. Seism. Soc. Am., 63, 381-403, 1980.
- Ebel, J.E., Hill, R.L., and Pechmann, J.C., Strong Ground Motions for the Homestead Valley, California, Earthquake Inferred from a Water Tank "Seismoscope", California Geology, 33, 106-109, 1980
- Hutton, L.K., Johnson, C.E., Pechmann, J.C., Ebel, J.E., Cole, D.M., Given, J.W., and German, P.T., Epicentral Locations for the Homestead Valley Earthquake Sequence, March 15, 1979, California Geology, 33, 110-114, 1980.
- Hill, R.L., Pechmann, J.C., Tremain, J.A., McMillan, J.R., Given, J.W., and Ebel, J.E., Surface Faulting and Surficial Shaking Effects Associated with the Homestead Valley Earthquakes of 15 March 1979, Mojave Desert, San Bernardino County, California, California Geology, 33, 60-67, 1980.
- Melosh, H.J., and Ebel, J.E., A Simple Model for Thermal Instability in the Asthenosphere, Geophys. J.R. astr. Soc., 59, 419-436, 1979.
- Hadley, D.M., Stewart, G.S., and Ebel, J.E., Yellowstone: Seismic Evidence for a Chemical Mantle Plume, Science, 193, 1237-1239, 1976.
- Peer Reviewed Articles in Conference Proceedings (chronological from most recent):  
 Liu, S., J.E. Ebel, A. Urzua and V. Murphy, Shear-Wave Velocity Analysis by Surface-Wave Methods in the Boston Area, Proceedings, 11<sup>th</sup> National Conference on Earthquake Engineering, in press, 2017.
- Monecke, K., J. Ebel, I. Atanassova, and G. Janigian, The Seismic, Historic and Geological Record of Earthquakes in New England, Guidebook to Field Trips in Southeastern New England

(MA-NH-RI), 106<sup>th</sup> Annual New England Intercollegiate Geological Conference, October 10-12, 2014, M.D. Thompson, Wellesley College, ed., <http://www.library.unh.edu/gital/>, 2014.

Ebel, J.E., A. Urzua and J. Britton, The Effect of Local Surficial Geology on the Ground Motions of Future Earthquakes in Boston, Massachusetts: A Comparison with Seismic Codes, Proceedings Volume 1, 57<sup>th</sup> Canadian Geotechnical Conference, paper G33.119, 2004.

Ebel, J.E., A. Urzua and J. Britton, The Expected Effect of Local Surficial Geology on the Ground Motions of Future Earthquakes in Boston, Massachusetts, Proceedings Volume 1, Soil and Rock America 2003, 12<sup>th</sup> Panamerican Conference on Soil Mechanics, 39<sup>th</sup> U.S. Rock Mechanics Symposium, 221-228, 2003.

Algermissen, S.T., E.V. Leyendecker, G.A. Bollinger, N.C. Donovan, J.E. Ebel, W.B. Joyner, R.W. Luft and J.P. Singh, Probabilistic Ground-Motion Hazard Maps of Response Spectral Ordinates for the United States, Proceedings, of the Fourth International Conference on Microzonation, Stanford, CA, vol. 4, pp. 687-694, 1991.

Ebel, J.E., The Seismicity of the Northeastern United States, in Seismic Hazards, Ground Motions, Soil-Liquefaction and Engineering Practice in Eastern North America, K. Jacob, ed. NCEER symposium proceedings, NCEER-87-0025, 178-188, 1987.

Major Reports (chronological from most recent):

Ebel, J. E. and T.A. Morgan, Principles of Seismic Design, Foxmoor Continuing Education, Halfmoon Education, Inc., Altoona, WI, 2014.

Wong, I., F. Terra, D. Bausch, J. Roselle, P. Morey, K. Rukstales, J. Ebel, L. Becker, and E. Fratto, HAZUS Analyses of Eleven Scenario Earthquakes in New England, prepared for FEMA, 445 pp., 2012.

Ebel, J.E., A.R. Lazarewicz and A.L. Kafka, Investigating Seismotectonics in the Eastern U.S. Using a Geographic Information System, U.S. Nuclear Regulatory Commission Report NUREG/CR-6573, 98 pp., 1998.

Ebel, J.E., R. Bedell and A. Urzua, A Report on the Seismic Vulnerability of the State of Vermont, submitted to the Vermont Emergency Management Agency, May, 1996.

Williams, M.E., S.P. Nishenko and J.E. Ebel, Proceedings of the Working Group Meeting on Northeast United States Earthquake Probability, U.S. Geological Survey Open-File Report 94-643, 1995.

Ebel, J.E., A Study of Seismicity and Tectonics in New England, U.S. Nuclear Regulatory Commission NUREG/CR-4354, 88 pp., 1985.

Harrison, W.D. Edgar, P. Barosh, J. Ebel, G. Kuecher, M. Tissue, S. Tsai, M. Winters, M. Flower, and M. Sood, Geology, Hydrology, and Mineral Resources of Crystalline Rock Areas of Northeastern United States, Energy and Environmental Systems Division, Argonne National Laboratory report ANL/ES-136, Part 1, 1983.

Other Publications (chronological from most recent):

Prepared in consultation with J.E. Ebel, History of Earthquakes in Connecticut, Northeast States Emergency Consortium, <http://nsec.org/connecticut-earthquakes/>, 2017.

Prepared in consultation with J.E. Ebel, History of Maine Earthquakes, Northeast States Emergency Consortium, <http://nsec.org/maine-earthquakes/>, 2017.

Prepared in consultation with J.E. Ebel, History of Earthquakes in Massachusetts, Northeast States Emergency Consortium, <http://nsec.org/massachusetts-earthquakes/>, 2017.

Prepared in consultation with J.E. Ebel, History of Earthquakes in New Hampshire, Northeast States Emergency Consortium, <http://nsec.org/new-hampshire-earthquakes/>, 2017.

Prepared in consultation with J.E. Ebel, History of Earthquakes in New Jersey, Northeast States Emergency Consortium, <http://nsec.org/new-jersey-earthquakes/>, 2017.

Prepared in consultation with J.E. Ebel, History of Earthquakes in New York, Northeast States Emergency Consortium, <http://nsec.org/new-york-earthquakes/>, 2017.

Prepared in consultation with J.E. Ebel, History of Earthquakes in Rhode Island, Northeast States Emergency Consortium, <http://nsec.org/rhode-island-earthquakes/>, 2017.

Prepared in consultation with J.E. Ebel, History of Earthquakes in Vermont, Northeast States Emergency Consortium, <http://nsec.org/vermont-earthquakes/>, 2017.

Ebel, J.E., The October 16, 2012 M 4.0 Earthquake at Waterboro, Maine: A First Report, *AEG News*, vol. 55, no. 4, p. 22, 2012.

Ebel, J.E., The Jesuit Science, *Company*, vol. 26, no. 4, pp. 28-31, Summer, 2009.

Ebel, J.E., Opinion: The Importance of Small Earthquakes, *Seism. Res. Lett.*, *79*, 491-493, 2008.

Ebel, J. E., The 1811-1812 New Madrid Earthquakes, *Facts on File*, 2007.

Ebel, J.E., entry entitled "Earthquakes" in *The Encyclopedia of New England*, B. Feintuch and D.H. Watters, editors, Yale University Press, 2005, p. 557.

Ebel, J.E., Seismologists Must Begin Forecasting Earthquakes, Opinion, *Seism. Res. Lett.*, *74*, 3-5, 2003.

Ebel, J.E., When Will the Earth Move?, Comment and Analysis, *NewScientist*, *177*, no. 2388, p. 29, 2003.

Ebel, J.E., Watching the Weather Using a Seismograph, Eduquakes column, *Seism. Res. Lett.*, *73*, 930-932, 2002.

Klotz, L. H. and J. E. Ebel, Earthquakes in the Eastern U.S.: How Vulnerable Are We? *Evaluating Risks and Mitigating Losses: New Opportunities and New Challenges*, Proceedings of the First Annual Congress on Natural Disaster Loss Reduction, Insurance Institute for Property Loss Reduction, 43-49, 1994.

Published Abstracts of Conference Presentations (last 5 years; chronologically from most recent):

Ebel, J.E., and D.W. Chambers, Estimating the Locations of Past and Future Large Earthquake Ruptures Using Recent M4 and Greater Earthquakes, Abstract S21B-0701, presented at the Fall 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec., 2017.

El-Ashkar, S., J.B. Hubeny, R. Knudstrup, and J.E. Ebel, Assessment of a Holocene High Energy Deposit and its Impact on Carbon Sequestration within a New England Salt Marsh, Abstract 72-4, Geological Society of America Abstracts with Programs. Vol. 49, No. 6



doi: 10.1130/abs/2017AM-305711

- Ebel, J.E., Estimating the Locations of Past and Future Large Earthquake Ruptures in California Using Recent M4 and Greater Earthquakes, Abstract S09-3-04, Joint IAG-IASPEI Meeting, Kobe, Japan, July 30-August 4, [http://www.iag-iaspei-2017.jp/files/IAG-IASPEI2017\\_abstracts.pdf](http://www.iag-iaspei-2017.jp/files/IAG-IASPEI2017_abstracts.pdf), 2017.
- Ebel, J.E., and D.W. Chambers, Estimating the Locations of Past and Future Large Earthquake Ruptures Using Recent M4 and Greater Earthquakes, International Workshop "Earthquake Hazards and Tectonics in Southwest Japan", Misasa, Japan, July 15-18, 2017.
- Ebel, J.E., O. Fadugba, A. Moulis, N.R. Dahal, and A.L. Kafka, Operational Earthquake Forecasting of Aftershocks in New England, *Seismological Research Letters*, **88**, 546, 2017.
- Liu, S., J.E. Ebel, Urzua, A., and V. Murphy, Shear-Wave Velocity Analysis by Surface Wave Methods in the Boston Area, *Seismological Research Letters*, **88**, 577, 2017.
- Dahal, N.R.D., and J.E. Ebel, Nonlinear Moment Tensor Inversion of the Envelopes and Cumulative Energy of Regional Seismic Waveforms, *Seismological Research Letters*, **88**, 687, 2017.
- Ebel, J.E., and M.C. Chapman, Eastern North America Passive Margin Earthquakes and Mesozoic Rift Structures, *Seismological Research Letters*, **88**, 700, 2017.
- Ebel, J.E., The Tectonic Structure of the Crust and Upper Mantle of the Northeastern United States and Southeastern Canada from Seismological Studies, Abstract 43-8, *Geological Society of America, Abstracts with Programs*, **49(2)**, doi: 10.1130/abs/2017NE-290670, 2017.
- Monecke, K., F.M.G. McCarthy, J.E. Ebel, J.B. Hubeny, D.J. Brabander, C. Knights, M. Passaretti, J.T. Pentesco, and P.M. Pilkington, Multiproxy Analysis of Unusual Sedimentary Units of Possible Seismic Origin in the Lacustrine Records of Sluice and Walden Ponds, Eastern Massachusetts, USA, Abstract 29-4, *Geological Society of America, Abstracts with Programs*, **49(2)**, doi: 10.1130/abs/2017NE-290670, 2017.
- Pentescio, J.T., F.M.G. McCarthy, G.R. Brooks, K. Monecke, J.B. Hubeny, J.E. Ebel, D. Hughes, and C.S. Garner, Palynofacies, Analysis in Eastern North American Lakes Applied to Studies of Paleoseismicity, Abstract 36-5, *Geological Society of America, Abstracts with Programs*, **49(2)**, doi: 10.1130/abs/2017NE-290670, 2017.
- Savage, N.C., S. Bruce, E. Cordova, M.E. Garate, A.I. Gourabou, C. Townsend and J.E. Ebel, A Detailed Gravity Survey in the Area of Central New Hampshire, Abstract 60-7, *Geological Society of America, Abstracts with Programs*, **49(2)**, doi: 10.1130/abs/2017NE-290670, 2017.
- Maguire, C., J.E. Ebel, B. Koch, T. Reid, E. Reineke, R. Zhang and H. Lynn, Search for the Fault of the 1638 Earthquake in Central New Hampshire, Abstract 60-8, *Geological Society of America, Abstracts with Programs*, **49(2)**, doi: 10.1130/abs/2017NE-290670, 2017.
- Cipar, J.J., and J.E. Ebel, Depth to the Moho in Southern New England and Eastern New York State From Seismic Receiver Functions, Abstract 60-9, *Geological Society of America, Abstracts with Programs*, **49(2)**, doi: 10.1130/abs/2017NE-290670, 2017.

- MacDonald, M., and J.E. Ebel, Induced Seismicity Associated with Waste Fluid Injection Wells, Abstract 60-1, Geological Society of America, Abstracts with Programs, 49(2), doi: 10.1130/abs/2017NE-290670, 2017.
- Baise, L.G., J. Kaklamanos, and J.E. Ebel, Site Effects in Strong-Impedance Environments and the Importance of F0: Lessons Learned in Boston, Massachusetts, Seismological Research Letters, 88, 239, 2017.
- Dahal, N., and J.E. Ebel, Nonlinear Moment Tensor Inversions of the Envelopes and Cumulative Energy of Regional Seismic Waveforms, Seismological Research Letters, 88, 247, 2017.
- Ebel, J.E., and M. Silva Borja, A Search for Recent Earthquakes Offshore of Northeastern North America, Seismological Research Letters, 88, 247, 2017.
- Pontrelli, M.A., and J.E. Ebel, Evaluating McAdam, New Brunswick Earthquake Swarms: An Analysis Using Double Difference Relative Location, Seismological Research Letters, 88, 257, 2017.
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