

Contact and Personal Information

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Date of Birth: March 20, 1965
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Education

B.S. Physics, University of California, San Diego, June 1988 (*cum-laude*)
Ph.D. Physics, University of California, Santa Cruz, December 1993 (Advisor: Stanley Flatte)

Chronology of Professional History

Adjunct Professor (Salaried), Department of Ocean Sciences, UC Santa Cruz, 7/2021 to present
Professor, Naval Postgraduate School, 06/2009 to present
Adjunct Professor, Department of Ocean Sciences, UC Santa Cruz, 8/2017 to 6/2021
Associate Professor, Naval Postgraduate School, 03/2005 to 06/2009
Associate Scientist with Tenure, Woods Hole Oceanographic Institution, 08/2004 to 03/2005.
Associate Scientist, Woods Hole Oceanographic Institution, 09/2000 to 08/2004.
Assistant Scientist, Woods Hole Oceanographic Institution, 09/1996 to 09/2000.
Postdoctoral Research Oceanographer, IGPP Scripps Institution of Oceanography, 11/1993 to 08/1996.

Awards, Honors, and Noteworthy Positions

Fellow, Acoustical Society of America, 2013
Medwin Prize in Acoustical Oceanography, Acoustical Society of America, 2012
A.B. Wood Medal, Institute of Acoustics & Acoustical Society of America, 2001
Cecil H. and Ida M. Green Scholar, Scripps Institution of Oceanography, 2000, 2014, and 2021
ONR Young Investigator Award, 1998-2001
ARCS Fellowship, 1992-93

Science Advisor, Task Force Ocean Tactical Oceanography Symposia (I, II, III and IV), 2018-2021
Chair, Acoustical Society of America (ASA), Acoustical Oceanography Technical Committee, 2016-19
Associate and Acoustical Oceanography Coordinating Editor, Journal of the ASA, 2006-
Chair NPS Undersea Warfare Academic Committee/Group, 2008-2011
Author/co-author of over 85 peer reviewed papers in ocean acoustics and physical oceanography.
Book Author, *Sound Propagation through the Stochastic Ocean*, Cambridge University Press 2016.

Academic Concentration and Research Interests

PRIMARY RESEARCH INTEREST: Statistical wave propagation.
RESEARCH INTERESTS: Observations, theory and numerical modeling. Internal waves and tides,
Wave propagation through random media, Acoustical remote sensing.
TEACHING INTERESTS: Wave propagation physics, Physical and acoustical oceanography.

Courses Taught

1. NPS OC3230, Descriptive Physical Oceanography
2. NPS OC3260, Fundamentals of Ocean Acoustics.
3. NPS OC4267, Ocean Acoustic Variability and Uncertainty
4. NPS OC4270, Tactical Oceanography
5. MIT 13.871, Wave Scattering by Rough Surfaces & Randomly Inhomogeneous Media

Academic Leadership

1. WHOI/MIT Joint Program Admissions Committee
2. WHOI/MIT Joint Program Education Council.
3. WHOI/MIT Ocean Engineering Qualifying Exam Research Oral Examiner.
4. WHOI/MIT Ocean Engineering Qualifying Exam Review Committee.
5. NPS Chair Undersea Warfare Academic Committee/Group, 2008-2011
6. NPS Oceanography Department, Associate Chair for Research 2011-2014
7. NPS Oceanography Department, Associate Chair for Instruction 2006-2009 and 2016-2018

Service to the Acoustical Society of America (ASA)

1. Associate Editor, JASA 2006-present
2. Acoustical Oceanography Coordinating Editor, JASA 2016-present
3. Chair ASA Acoustical Oceanography Technical Committee 2016-2019
4. ASA Committee on Publication Policy 2019-present
5. ASA Committee for the Future, Working Group A, 2018-present
6. ASA Medals and Awards Committee, 2022-present

Major Field Experience and Sea Time

1. Acoustic Thermometry of Ocean Climate (ATOC) Program 1994-1996 (Science Party)
2. Shelfbreak Primer Experiments 1996-1997 (Science Party)
3. North Pacific Acoustic Laboratory Field Study 1998-1999 (Chief Scientist, R/V Melville)
4. Long Range Acoustic Propagation Experiment (LOAPEX) 2004-2005 (Science Party)
5. Spice Experiment, 2004-2005
6. Shallow Water 2006 (SW06) Experiment
7. Philippine Sea Acoustic Propagation Experiments 2009-2011 (Science Party)
8. Thin -ice Arctic Acoustic Window (THAAW), 2013
9. Canada Basin Acoustic Propagation Experiments (CANAPE) 2015-2017
10. Inner shelf DRI Experiments 2015-2017 (Chief Scientist, R/V Sally Ride)
11. Coordinated Arctic Acoustic Thermometry Experiment (CAATEX) 2019-2020 (Science Party, K/V Svalbard)
12. Task Force Ocean DRI Pilot Study, Spring, Summer, and Fall 2022 (Science Party, R/V Armstrong and Atlantic Explorer)

Thesis and Postdoc Supervision**NPS Masters Theses**

1. LT. Elizabeth M. Scheidecker, 09/2005. ``Wavelet analysis of bioacoustic scattering and marine mammal vocalizations``.
2. LT. Matthew Henigin, 09/2005. ``An investigation of numerical techniques for the Fourier matching method acoustic scattering model``.
3. LT. Aaron Young, 05/2006. ``Two dimensional acoustic propagation though oceanic internal solitary waves: Weak scattering theory and numerical simulation``.

4. LT. Vanessa Gutherie, 05/2006. ``Dynamics of eastern boundary currents and their effects on sound speed structure``.
5. LT. Doug Roush, 05/2006. ``A numerical investigation of fully three dimensional acoustic propagation through planar oceanic internal solitary waves``.
6. LT. Max Salizar, 03/2007. ``A study of wavefront stability in the presence of small scale ocean sound speed structure``.
7. LT. Serdar Tombul, 03/2007. `` A numerical study of the regimes of validity of weak fluctuation theory for ocean acoustic propagation through random internal wave sound speed fields``.
8. LT. Alban Simon, 12/2007. ``Field testing of a reduced physics acoustic scattering model for low frequency sound propagation through nonlinear internal gravity wave: South China Sea.``.
9. LCDR. Kim Freitas, 06/2008. ``Effects of mesoscale eddies on Philippine sea acoustic predictions``
10. LT. Jason Cornell, 06/2009. ``Simulation and theory for 3-D acoustic propagation through nonlinear shallow water internal waves``.
11. LT. Paul Blodgett, 10/2009. ``Laser propagation though the irregular ocean surface``.
12. LT. Scott Thompson, 12/2009. `` Sound Propagation Considerations for a Deep-ocean Acoustic Network``.
13. LT. Jacob Fischer, 9/2013, ``Characterizing internal tide induced sound speed fluctuations in the Philippine Sea``
14. LT. Wes Coby, 9/2013, ``Characterization of internal tide induced acoustic fluctuations in the Philippine Sea``.
15. LT. Bambang Marwoto, 12/2015. ``Observations and modeling of stochastic acoustic phase fluctuations caused by ocean internal waves in the Philippine Sea``
16. LT. Annalise Pearson, 06/2016. ``Observations and modeling of acoustic propagation in the Beaufort Sea during the summer of 2015``.
17. LCDR. William Zinicola-Lapin, 2020. ``Sensitivity of Mixed Layer Duct Propagation to Deterministic Ocean Features``.
18. ENS Braydon Hammond, Spring 2023, ``Characterization of internal waves and tides in the vicinity of the New England Seamounts and their effects on acoustic propagation``

PhD Theses (Advisor or co-advisor)

1. Jinshan Xu (WHOI/MIT), 2007. ``Effects of internal waves on low frequency, long range acoustic propagation in the deep ocean``.
2. LCDR Ben Jones (NPS), 2013. ``Statistical characterization of acoustic scattering by aggregations of fish in a range-dependent oceanic waveguide``.
3. LCDR Dominic DiMaggio (NPS), 2016. `` Observations and modeling of upper ocean hydrography in the Western Arctic with implications for acoustic propagation``
4. LCDR Thomas Freismuth (NPS), 2018. ``Innershelf/surfzone interactions observed on the inner continental shelf north of Pt. Conception CA``.
5. Murat Kucukosmanglu (UCSC), 2022. ``Physical Oceanographic and Acoustic Observations of the Beaufort Sea and its Subsurface Duct Sensitivity to Deterministic Ocean Features``.

Postdoctoral Advisor

1. Chris Rehmann (WHOI), 1997-1999
2. Andrew Fredricks (WHOI), 2000-2003
3. Tarun Chandrayadula (NPS), 2010-2014.
4. Kaus Raghukumar (NPS) 2013-2016
5. Ned Richards (UCSC) 2020-2022.

Refereed Publications

1. Colosi, J. A. and T. P. Barnett. "The characteristic spatial and temporal scales for SLP, SST, and air temperature in the southern hemisphere," *J. Appl. Meteor.*, Vol 29, No. 8, pp 694-703, 1990.
2. Duda, T. F., S. M. Flatté, J. A. Colosi, B. D. Cornuelle, J. A. Hildebrand, W. S. Hodgkiss, Jr., P. F. Worcester, B. M. Howe, J. A. Mercer and R. C. Spindel. "Measured wave-front fluctuations in 1000-km pulse propagation in the Pacific Ocean," *J. Acoust. Soc. Am.*, 92 (2), pp 939-55, 1992.
3. Colosi, J. A., S. M. Flatté, and C. Bracher, 1994, "Internal-wave effects on 1000-km oceanic acoustic pulse propagation: Simulation and comparison to experiment," *J. Acoust. Soc. Am.* 96 (1), pp 452-68.
4. Colosi, J. A. and S. M. Flatté. "Mode coupling by internal waves for multi-megameter acoustic propagation in the ocean," *J. Acoust. Soc. Am.*, 100 (6), pp 3607-3620, 1996.
5. Colosi, J. A. and M. G. Brown. "Efficient numerical simulation of stochastic internal-wave-induced sound-speed perturbation fields," *J. Acoust. Soc. Am.*, 103 (4), pp 2232-2235, 1998.
6. The ATOC Group. "The general circulation and heat budget of the North Pacific Ocean from satellite altimetry, acoustic tomography, and a general circulation model," *Science*, 281, pp1327-32, 1998.
7. Colosi, J. A., E. K. Scheer, S. M. Flatté, B. D. Cornuelle, M. A. Dzieciuch, W. H. Munk, P. F. Worcester, B. M. Howe, J. A. Mercer, R. C. Spindel, K. Metzger, T. G. Birdsall, and A. B. Baggeroer. "Comparison of measured and predicted acoustic fluctuations for a 3250-km propagation experiment in the eastern North Pacific Ocean," *J. Acoust. Soc. Am.*, 105 (6), pp 3202-3218, 1999.
8. Worcester, P. F., B. D. Cornuelle, M. A. Dzieciuch, W. H. Munk, J. A. Colosi, B. M. Howe, J. A. Mercer, R. C. Spindel, K. Metzger, T. G. Birdsall, and A. B. Baggeroer. "A test of basin-scale acoustic thermometry using a large-aperture vertical array at 3250-km range in the eastern North Pacific Ocean," *J. Acoust. Soc. Am.*, 105 (6), pp3190-3201, 1999.
9. Dushaw, B. D., B. M. Howe, J. A. Mercer, R. C. Spindel, J. A. Colosi, B. D. Cornuelle, M. A. Dzieciuch, W. H. Munk, and P. F. Worcester. "Multimegameter range acoustic data obtained by bottom mounted hydrophone arrays for measurement of ocean temperature," *Invited, IEEE J. Oceanic Eng.*, V 24, No 2, pp 202-214, 1999.
10. Colosi, J. A. and the ATOC Group. "A review of recent results on ocean acoustic wave propagation in random media: Basin scales," *Invited, IEEE J. Oceanic Eng.*, V 24, No 2, pp 138-155, 1999.
11. Colosi, J. A., R. C. Beardsley, G. Gawarkiewicz, J. F. Lynch, C. Chiu, and A. Scotti. "Observations of nonlinear internal waves on the outer New England continental shelf during the summer shelfbreak PRIMER study," *J. Geophys. Res. Oceans*, V 106, No. C5, pp 9587-9601, 2001
12. Colosi, J. A., F. Tappert, and M. Dzieciuch. "Further analysis of intensity fluctuations from a 3252-km acoustic propagation experiment in the eastern North Pacific Ocean," *J. Acoust. Soc. Am.*, V 110, No. 1, pp 163-169, 2001
13. Dushaw, B. D., G. Bold, C.-S. Chui, J. Colosi, B. Cornuelle, Y. Desaubies, M. Dzieciuch, A. Forbes, F. Gaillard, J. Gould, B. Howe, M. Lawrence, J. Lynch, D. Menemenlis, J. Mercer, P. Mikhaelovsky, W. Munk, I. Nakano, F. Schott, U. Send, R. Spindel, T. Terre, P. Worcester, and C. Wunsch. "Observing the ocean in the 2000's: A strategy for the role of acoustic tomography in ocean climate observation" in *Observing the Oceans in the 21st Century*, edited by C. J. Koblinsky and N. R. Smith (GODAE Project Office and Bureau of Meteorology, Melbourne), pp. 391-418, 2001

14. Brown, M. G., J. A. Colosi, S. Tomsovic, A. L. Virovlyansky, M. A. Wolfson, and G. M. Zaslavsky. "Ray Dynamics in Ocean Acoustics," *J. Acoust. Soc. Am.*, V113, No. 5, pp 2533 – 2547, 2003
15. Beron-Vera, F. J., M. G. Brown, J. A. Colosi, S. Tomsovic, A. L. Virovlyansky, M. Wolfson, and G. M. Zaslavsky, "Ray dynamics in a long range acoustic propagation experiment," *J. Acoust. Soc. Am.* V114(3), pp 1226-1242, 2003.
16. Roux P., W.A. Kuperman, J. A. Colosi, B.D. Cornuelle, B.D. Dushaw, M. A. Dzieciuch, B.M. Howe, J. A. Mercer, W. H. Munk, R. C. Spindel, and P. F. Worcester, "Extracting coherent wavefronts from acoustic ambient noise in the ocean", 116(4), pp1995-2003, 2004.
17. Colosi, J. A. and A. B. Baggeroer, "On the kinematics of broadband multipath scintillation and the approach to saturation," *J. Acoust. Soc. Am.*, V116(6), pp3515-3522, 2004.
18. Morozov, A. K. and J. A. Colosi, "Entropy and scintillation analysis of acoustical beam propagation through ocean internal waves," *J. Acoust. Soc. Am.*, V117(3), pp1611-1623, 2005.
19. Fredricks, A., J. A. Colosi, J.F. Lynch, G. Gawarkeiwicz, C.S. Chiu, and P. Abbot, "Analysis of multipath scintillations observed during the summer 1996 New England shelfbreak PRIMER study," *J. Acoust. Soc.*, V117(3), pp 1038-1057, 2005.
20. Colosi, J. A., A. B. Baggeroer, B. D. Cornuelle, M. A. Dzieciuch, W. H. Munk, P. F. Worcester, B. D. Dushaw, B. M. Howe, J. A. Mercer, R. C. Spindel, T. G. Birdsall, K. Metzger, and A. M. G. Forbes, "Analysis of multipath acoustic field variability and coherence for the finale of broadband basin-scale transmissions in the North Pacific Ocean," *J. Acoust. Soc. Am.*, V117(3), pp 1538-1564, 2005.
21. Baggeroer, A. B., E. Scheer, J. A. Colosi, B.D. Cornuelle, B.D. Dushaw, M. A. Dzieciuch, B.M. Howe, J. A. Mercer, W. H. Munk, R. C. Spindel, and P. F. Worcester, "Statistics and vertical directionality of low-frequency ambient noise at the North Pacific Acoustics Laboratory site", *J. Acoust. Soc. Am.*, V117(3), pp1643-1665, 2005.
22. Vera, M. D., K. Heaney, J. A. Colosi, B.D. Cornuelle, B.D. Dushaw, M. A. Dzieciuch, B.M. Howe, J. A. Mercer, W. H. Munk, R. C. Spindel, and P. F. Worcester, "The effect of bottom interaction on transmissions from the North Pacific Acoustic Laboratory Kauai source," *J. Acoust. Soc. Am.*, V117(3), pp1624-1634, 2005.
23. Voronovich, A.G., V.E. Ostashev, J. A. Colosi, B.D. Cornuelle, B.D. Dushaw, M. A. Dzieciuch, B.M. Howe, J. A. Mercer, W. H. Munk, R. C. Spindel, and P. F. Worcester, "Horizontal refraction of acoustic signals retrieved from North Pacific Acoustic Laboratory billboard array data," *J. Acoust. Soc. Am.*, V117(3), pp1527-1537, 2005.
24. Andrew, R. K., B. M. Howe, J. A. Mercer, J. A. Colosi, B.D. Cornuelle, B.D. Dushaw, M. A. Dzieciuch, B.M. Howe, J. A. Mercer, W. H. Munk, R. C. Spindel, and P. F. Worcester, "Transverse horizontal spatial coherence of deep arrivals at megameter ranges," *J. Acoust. Soc. Am.*, pp1511-1526, 2005.
25. Colosi, J. A. and W. Munk, "Tales of the venerable Honolulu tide gauge," *J. Phys. Oc.*, Vol. 36, No. 6, pages 967–996, 2006.
26. Lynch, J. F., J. A. Colosi, G. Gawarkiewicz, T. F. Duda, M. Badiy, B. Katznelson, J. E. Miller, and C.S. Chiu, "Inclusion of finescale coastal oceanography and 3-D acoustic effects into the ESME sound exposure model," *IEEE J. Oceanic Eng.*, Special Issue on the Effects of Sound on the Marine Environment (ESME), V31(1), pp33-48, 2006.
27. Colosi, J. A., "Geometric sound propagation through an inhomogeneous and moving ocean: Scattering by small scale internal wave currents", *J. Acoust. Soc. Am.*, V119(2), pp705-708, 2006.
28. Morozov, A. , and J. A. Colosi, "Stochastic differential equation application for analysis of sound scattering by ocean random internal waves." *Acoustical Physics (Akusticheskii zhurnal)* vol. 53 N3, 2007 .

29. Colosi, J.A., "Acoustic mode coupling induced by shallow water nonlinear internal waves: Sensitivity to environmental conditions and space-time scales of internal waves", *J. Acoust. Soc. Am.*, 124(3), pp 1452-1464, 2008.
30. Flatte, S., and J. Colosi, "Anisotropy of the wavefront distortion for acoustic pulse propagation through ocean sound-speed fluctuations: A ray perspective", *IEEE J. Oceanic Eng.*, V33(4), pp477-488, 2008.
31. Colosi, J.A., J. Xu, M.A. Dzieciuch, P. Worcester, B. Howe, J. Mercer, and B. Spindel, "Temporal and vertical scales of acoustic fluctuations from 75-Hz, broadband transmissions to 87-km range in the eastern North Pacific Ocean", 126(3), pp1069-1083, 2009
32. Mercer, J., J. Colosi, B. Howe, M. Dzieciuch, R. Stephen, and P. Worcester, "LOAPEX: The Longe Range Acoustic Propagation Experiment", *IEEE J. Oceanic Eng.*, 34(1), pp1-11, 2009.
33. Stephen, R., M. Dzieciuch, P. Worcester, R. Andrew, B. Howe, J. Mercer, and J. Colosi, (2009). "Deep shadow zone arrivals on the seafloor", *J. Acoust. Soc. Am.*, 126(2), pp599-606.
34. Colosi, J.A. and A.K. Morozov, "Statistics of normal mode amplitudes in an ocean with random sound speed perturbations: Cross mode coherence and mean intensity", *J. Acoust. Soc. Am.*, 126(3), pp, 1026-1035, 2009.
35. Grigorieva, N.S., J.A. Mercer, R.K. Andrew, M.A. Wolfson, B.M.Howe, and J.A. Colosi, "The interference component of the acoustic field corresponding to the Long-Range Ocean Acoustic Propagation Experiment", *J. Acoust. Soc. Am.*, 125(4), pp1919-1929, 2009.
36. Cole, S. T., D. L. Rudnick, and J. A. Colosi, "Seasonal evolution of upper-ocean horizontal structure and the remnant mixed layer," *J. Geophys. Res.*, 115, C04012, doi:10.1029/2009JC005654, 2010.
37. Van Uffelen, L.J., P.F. Worcester, M.A. Dzieciuch, D. Rudnick, and J.A. Colosi, "Effects of upper ocean sound speed structure on deep acoustic shadow zone arrivals at 500- and 1000-km range", *J. Acoust. Soc. Am.*, 127(4), pp2169-2181, 2010.
38. Voronovich, A.G., V.E. Ostashev, and J.A. Colosi, "Temporal coherence of acoustic signals in a fluctuating ocean", *J. Acoust. Soc. Am.*, 129(6), pp2590-2597, 2011.
39. Colosi, J.A., T.F. Duda, T.T. Lin, J. Lynch, A. Newhall, and B.C. Cornuelle, "Observations of sound speed fluctuations on the New Jersey continental shelf in the summer of 2006", *J. Acoust. Soc. Am.*, 131(2), pp1733-1748, 2012.
40. Colosi, J. A., T.F. Duda, and A.K. Morozov, "Statistics of low frequency normal mode amplitudes in an ocean with random sound speed perturbations: First and second moments of intensity in shallow water environments", *J. Acoust. Soc. Am.*, 131(2), pp1749-1761, 2012.
41. Udovydchenkov, I.A., M.G. Brown, T. F. Duda, J.A. Mercer, R. K. Andrew, P. F. Worcester, M.A. Dzieciuch, B. M. Howe, and J. A. Colosi, "A modal analysis of the range evolution of broadband wavefields in the Long-range Ocean Acoustic Propagation Experiment: Low mode numbers", *J. Acoust. Soc. Am.*, 131, pp4409-4427, 2012.
42. Colosi, J.A., "On horizontal coherence estimates from path integral theory for sound propagation through random ocean sound-speed perturbations", *J. Acoust. Soc. Am.*, 134(4), pp3116-3118, 2013.
43. Colosi, J. A., T. Chandrayadula, A. G. Voronovich, and V.E. Ostashev, "Coupled mode transport theory for sound propagation through an ocean with random sound-speed perturbations: Coherence in deep water environments", *J. Acoust. Soc. Am.*, 134(4), pp3119-3133, 2013.
44. Chandrayadula, T., J. A. Colosi, M.A. Dzieciuch, P. Worcester, R.K. Andrew, J.A. Mercer, and B. Howe, "Observations and transport theory analysis of low frequency, long range mode propagation in the Eastern North Pacific Ocean", *J. Acoust. Soc. Am.*, 134(4), pp3144-3160, 2013.
45. Stephen, R.A., S. Bolmer, I. Udovydchenkov, P. Worcester, M. Dzieciuch, R. Andrew, J. Mercer, J. Colosi, and B. Howe, "Deep seafloor arrivals in long range ocean acoustic propagation", *J. Acoust. Soc. Am.*, 134(4), pp3307-3317, 2013.

46. Andrew, R., A. W. White, J.A. Mercer, P.F. Worcester, M.A. Dzieciuch, and J.A. Colosi, "Wavefront intensity statistics for 284-Hz broadband transmissions to 107-km range in the Philippine Sea: observations and modeling", *J. Acoust. Soc. Am.*, 134(4), pp3347-3358, 2013.
47. Worcester, P.F., M.A. Dzieciuch, J.A. Mercer, R.K. Andrew, A.B. Baggeroer, K.D. Heaney, G.J. D'Spain, J.A. Colosi, R.A. Stephen, J.N. Kemp, B.M. Howe, and L.J. VanUffelen, "The North Pacific Acoustic Laboratory (NPAL) deep-water acoustic propagation experiments in the Philippine Sea", *J. Acoust. Soc. Am.*, 134(4), pp3359-3375, 2013.
48. Colosi, J.A., L.J. Van Uffelen, B.D. Cornuelle, M.A. Dzieciuch, P.F. Worcester, B.D. Dushaw, and S.R. Ramp, "Observations of sound speed fluctuations in the western Philippine Sea in the spring of 2009", *J. Acoust. Soc. Am.*, 134(4), pp3185-3200, 2013.
49. Udovychenkov, I.A., M.G. Brown, T. F. Duda, J.A. Mercer, R. K. Andrew, P. F. Worcester, M.A. Dzieciuch, B. M. Howe, and J. A. Colosi, "Weakly dispersive modal pulse propagation in the North Pacific Ocean", *J. Acoust. Soc. Am.*, 134(4), pp3386-3394, 2013.
50. Colosi, J.A. and P.F. Worcester, "Deep Water Ocean Acoustics: Forward", *J. Acoust. Soc. Am.*, 134(4), p3115, 2013.
51. Jones, B.A., J.A. Colosi, and T.K. Stanton, "Echo statistics of individual and aggregations of scatterers in the water column of a random oceanic waveguide", *J. Acoust. Soc. Am.*, 136, pp90-108, 2014.
52. Raghukumar, K. and J.A. Colosi, "High frequency normal mode statistics in a shallow water waveguide: I. The effect of random linear internal waves", *J. Acoust. Soc. Am.*, 136, pp66-79, 2014.
53. Raghukumar, K. and J.A. Colosi, "High frequency normal mode statistics in a shallow water waveguide: I. The combined effect of random linear surface and internal waves", *J. Acoust. Soc. Am.*, 137(5), pp2950-2961, 2015.
54. Colosi, J. A., "A re-formulation of the $\Lambda \Phi$ diagram for the prediction of ocean acoustic fluctuation regimes", *J. Acoust. Soc. Am.*, 137(5), pp2485-2493, 2015.
55. Morozov, A.K., and J.A. Colosi, "Entropy rate defined by internal wave scattering in long range propagation", *J. Acous. Soc. Am.*, 138, 1353-1364, 2015.
56. Andrew, R. A. White, J. Mercer, P. Worcester, M. Dzieciuch, and J.A. Colosi, "A test of deep water Rytov theory at 284 Hz and 107 km in the Philippine Sea", *J. Acous. Soc. Am.*, 138, pp256-271, 2015.
57. Radko, T. J. Ball, J.A. Colosi, J. Flanagan, "Double-diffusive convection in a stochastic shear", *J. Phys. Oc.*, 45, 3155-3167, 2015.
58. Andrew, R.K., A. Ganse, A.W. White, J.A. Mercer, M.A. Dzieciuch, P.F. Worcester, and J.A. Colosi, "Low-frequency pulse propagation over 510 km in the Philippine Sea: A comparison of observed and theoretical pulse spreading", *J. Acoust. Soc. Am.*, 140(1), pp216-228, 2016
59. White, A.W. F.S. Henyey, R.K. Andrew, J.A. Mercer, M.A. Dzieciuch, P.F. Worcester, and J.A. Colosi, "Internal tides and deep diel fades in acoustic intensity", *J. Acoust. Soc. Am.*, 140(5), pp 3952-3962, 2016.
60. Ramp, S.R., J.A. Colosi, P.F. Worcester, F.L., Bahr, K. Heaney, J.A. Mercer, and L.J. Van Uffelen. "Eddy properties in the Subtropical Countercurrent, Western Philippine Sea", *Deep Sea Res*, 125, pp11-25, 2017.
61. Jones, B.A., J.A. Colosi, T.K. Stanton, R. C. Gauss, J.M. Fialkowski, and J. Michael Jech "Classification and statistics of long range mid-frequency sonar measurements of aggregations of fish", *J. Acoust. Soc. Am.*, 141(6), pp4354-4366, 2017.
62. Morozov, A and J.A. Colosi, "Equations for normal-mode statistics of sound scattering by a rough elastic boundary in an underwater waveguide, including backscattering", *JASA-el*, 142(3), 2017
63. Colosi, J.A., T. Freismuth, J. MacMahan, N. Kumar, and A. Suanda. "Statistics of Internal Tide Bores and Internal Solitary Waves Observed on the Inner Continental Shelf North of Pt. Conception CA", *J. Phys. Oc.*, V48(1), pp123-143, 2018

64. Colosi, J. A. "Sound propagation through the stochastic ocean, Rebuttal to June 2017 JASA Book Review", *J. Acoust. Soc. Am.*, V143(1), pp13-15, 2018.
65. DiMaggio, D., J.A. Colosi, J. Joseph, A. Pearson, P.F. Worcester, and M.A. Dzieciuch. "Observations of thermohaline sound-speed structure induced by internal waves and spice in the summer 2015 Canada Basin marginal ice zone", *Elementa Sci Anth* 6(1), 2018.
66. Lerczak, J., J. A. Barth, S. Celona, C. Chickadel, J. A. Colosi, F. Feddersen, M. Haller, S. Haney, L. Lenain, J. MacKinnon, J. MacMahan, K. Melville, A. O'Dea, P. Smit, and A. Waterhouse, "Untangling the Interconnected Dynamics of the Ocean's Inner 1 Continental Shelf", *American Geophysical Union, EOS*, April 2019.
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