

Curriculum vitae (*updated 9/03/2024*)

Alexander E. Yankovsky

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Education

Ph.D., Physical-Mathematical Sciences/Geophysics, 1991, Marine Hydrophysical Inst., Sevastopol, USSR. Advisor: Prof. Vitaly A. Ivanov.
M.S., Oceanography, 1986 (with honors), Moscow State Univ., Moscow, USSR. Advisor: Prof. Alexei D. Dobrovol'sky.

Experience

- Professor, School of the Earth, Ocean and Environment, Univ. South Carolina, 2020 - present.
- Associate Professor, School of the Earth, Ocean and Environment, Univ. South Carolina, 2012 - 2019.
- Assistant Professor, Department of Earth and Ocean Sciences, Univ. South Carolina, 2006 - 2012.
- Assistant Professor, Nova Southeastern Univ. Oceanographic Center, 1999 – 2006.
- Associate Research Scientist, Graduate College of Marine Studies, Univ. Delaware, 1998 – 1999.
- Postdoctoral Fellow, Graduate College of Marine Studies, Univ. Delaware, 1996 – 1998.
- Visiting Investigator, Woods Hole Oceanographic Inst., 1993 – 1996.
- Research Scientist, Marine Hydrophysical Inst., 1992-1994.
- Junior Research Scientist, Marine Hydrophysical Inst., 1991-1992.
- Graduate Student, Research Assistant, Marine Hydrophysical Inst., 1988-1991.
- Engineer-Meteorologist, USSR Air Force, 1986-1988.

Research Interests

Dynamics on continental shelves, in estuaries, and in marginal seas. Wind- and buoyancy-driven currents, tides, transient and time-variable processes, waves, wave-current interaction, meso- and submesoscale variability, adjustment of waves and currents to topographic and coastline features.

Publications

Peer-reviewed papers:

50. Mucbe, Y., K. Klingbeil, M. Lorenz, A. E. Yankovsky, and H. Burchard, 2024: Wind influence on mixing and cross-shore transport in river plumes. Submitted to *J. Geophys. Res. – Oceans*.
49. Yankovsky, A. E., and Y. P. Ilyin, 2024: The Dnipro-Buh plume: a tale of high-volume freshwater discharge in a non-tidal sea. Submitted to *Continental Shelf Research*.
48. Dykstra, S. L., E. Viparelli, S. A. Talke, A. E. Yankovsky, and R. Torres, 2024: Reflection of storm surge and tides in convergent estuaries with dams, the case of Charleston, USA. *Journal of Geophysical Research - Oceans*. In press, paper #2023JC020498.

47. Dykstra, S. L., G. Ricche[§], G. Marmorino, and A. E. Yankovsky, 2024: Forcing conditions of cross-shelf plumes on a wide continental shelf, Winyah Bay, South Atlantic Bight. *Remote Sensing of Environment*, **311**, 114279. <https://doi.org/10.1016/j.rse.2024.114279>
46. Yankovsky, E, and A. Yankovsky, 2024: The cross-shelf regime of a wind-driven supercritical river plume. *Journal of Physical Oceanography*, **54**, 537-556, DOI: 10.1175/JPO-D-23-0012.1.
45. Osadchiev, A. and A. Yankovsky, 2022: Editorial: River plumes and estuaries. *Front. Mar. Sci.* **9**:986114. doi: 10.3389/fmars.2022.986114.
44. Kaur, H., M. Buijsman, A. E. Yankovsky, C.-H. Jeon, and A. Wallcraft, 2022: The occurrence of tidal hybrid Kelvin edge waves in the Global Ocean. *Cont. Shelf Res.*, **241**, 104734, <https://doi.org/10.1016/j.csr.2022.104734>.
43. Yankovsky, A. E., D. B. Fribance, D. Cahl, and G. Voulgaris, 2022: Offshore spreading of a Supercritical plume under upwelling wind forcing: a case study of the Winyah Bay outflow. *Front. Mar. Sci.*, **8**:785967, doi: 10.3389/fmars.2021.785967.
42. Sulaiman, Z. A., E. Viparelli, R. Torres, A. Yankovsky, and J. Grego, 2021: The influence of tides on coastal plain channel geomorphology: Altamaha River, Georgia, USA. *Journal of Geophysical Research: Earth Surface*, **126**, e2020JF005839. <https://doi.org/10.1029/2020JF005839>.
41. Igeta, Y., M. Kuga, A. Yankovsky, T. Wagawa, K. Fukudome, A. Kaneda, S. Ikeda, T. Tsuji, and N. Hirose, 2021: Effect of a current trapped by a continental slope on the pathway of a coastal current crossing Toyama Trough, Japan. *Journal of Oceanography*, **77**, 685-701, <https://doi.org/10.1007/s10872-021-00601-w>.
40. Yankovsky, A. E., and G. Voulgaris, 2019: Response of a coastal plume formed by tidally-modulated estuarine outflow to light upwelling-favorable wind. *Journal of Physical Oceanography*, **49**, 691-703, DOI: 10.1175/JPO-D-18-0126.1.
39. Zhang[§], T., A. E. Yankovsky, A. R. Piola, and D. Valla, 2018: Observations of semidiurnal internal tides on the Patagonian Shelf. *Continental Shelf Research*, **167**, 46-54.
38. Igeta, Y., A. Yankovsky, K. Fukudome, S. Ikeda, N. Okei, K. Ayukawa, A. Kaneda, and T. Watanabe, 2017: Transition of the Tsushima Warm Current path observed over Toyama Trough, Japan. *Journal of Physical Oceanography*, **47**, 2721-2739, doi:10.1175/JPO-D-17-0027.1.
37. Yankovsky, A. E., and T. Zhang[§], 2017: Scattering of a semidiurnal barotropic Kelvin wave into internal waves over wide continental shelves. *Journal of Physical Oceanography*, **47**, 2545-2562, doi:10.1175/JPO-D-16-0284.1.
36. Soloviev, A. V., A. Hiron, C. Maingot, C. W. Dean, R. E. Dodge, A. E. Yankovsky, J. Wood, R. H. Weisberg, M. E. Luther, and J. P. McCreary, 2017: Southward Flow on the Coastal Flank of the Florida Current. *Deep-Sea Res. I*, **125**, 94-105.
35. Zhang[§], T., and A. E. Yankovsky, 2016: On the nature of cross-isobath energy fluxes in topographically modified barotropic semidiurnal Kelvin waves. *J. Geophys. Res. Oceans*, **121**, 3058–3074, doi:10.1002/2015JC011617.
34. Yankovsky, A. E., and S. K. Iyer[§], 2015: Propagation of subtidal sea level oscillations in the river channel: A case study of the St. Johns River, Florida, USA. *Estuarine, Coastal and Shelf Science*, **157**, 69-78.
33. Yankovsky, A. E., and I. Yashayaev, 2014: Surface buoyant plumes from melting icebergs in the Labrador Sea. *Deep-Sea Research I*, **91**, 1-9.
32. Yankovsky, A. E., R. Torres, L. M. Torres-Garcia[§], and J. Walker, 2012: Interaction of tidal and fluvial processes in the transition zone of the Santee River, SC, USA. *Estuaries and Coasts*, **35**, 1500-1509.
31. Jia[§], Y., and A. E. Yankovsky, 2012: The impact of ambient stratification on freshwater transport in a river Plume. *Journal of Marine Research*, **70**, 69-92.
30. Trembanis, A., S. Nebel, A. Skarke, D. F. Coleman, R. D. Ballard, A. Yankovsky, I. V. Buynevich, and

- S. Voronov, 2011: Bedforms, coastal-trapped waves, and scour process observations from the continental shelf of the northern Black Sea. In: *Geology and Geoarchaeology of the Black Sea Region: Beyond the Flood Hypothesis*. Edited by I. V. Buynevich, V. Yanko-Hombach, A. S. Gilbert, and R. E. Martin. The Geological Society of America, Special Papers, **473**, 165-178.
29. Ke^s, Z., and A. E. Yankovsky, 2011: Relative role of subinertial and superinertial modes in the coastal long wave response forced by the landfall of a tropical cyclone. *Continental Shelf Research*, **31**, 929-938.
28. Ke^s, Z., and A. E. Yankovsky, 2010: The Hybrid Kelvin-Edge Wave and Its Role in Tidal Dynamics. *Journal of Physical Oceanography*, **40**, 2757-2767.
27. Yankovsky, A. E., G. M. Maze^s, and T. J. Weingartner, 2010: Offshore transport of the Alaska Coastal Current water induced by a cyclonic wind field. *Geophysical Research Letters*, **37**, L03604, doi:10.1029/2009GL041939.
26. Yankovsky, A. E., 2009: Large-scale edge waves generated by hurricane landfall. *Journal of Geophysical Research*, **114**, C03014, doi:10.1029/2008JC005113.
25. Rogers-Cotrone^s, J., A. E. Yankovsky, and T. J. Weingartner, 2008: The impact of spatial wind variations on freshwater transport by the Alaska Coastal Current. *Journal of Marine Research*, **66**, 899-925.
24. Sanay, R., A. Yankovsky, and G. Voulgaris, 2008: Inner shelf circulation patterns and nearshore flow reversal under downwelling and stratified conditions off a curved coastline. *Journal of Geophysical Research*, **113**, C08050, doi:10.1029/2007JC004487.
23. Yankovsky, A. E., 2008: Long-wave response of the West Florida Shelf to the landfall of Hurricane Wilma, October 2005. *Journal of Coastal Research*, **24**(4C), 33-39.
22. Yankovsky, A. E., 2006: On the validity of thermal wind balance in alongshelf currents off the New Jersey coast. *Continental Shelf Research*, **26**, 1171-1183.
21. Walker^s, R. J., E. O. Keith, A. E. Yankovsky, and D. K. Odell, 2005: Environmental correlates of cetacean mass stranding sites in Florida. *Marine Mammal Science*, **21**, 327-335.
20. Yankovsky, A. E., 2004: Interaction of transient shelf currents with a buoyancy-driven coastal current. *Journal of Marine Research*, **62**, 545-563.
19. Yankovsky, A. E., E. M. Lemesko, and Y. P. Ilyin, 2004: The influence of shelfbreak forcing on the alongshelf penetration of the Danube buoyant water, Black Sea. *Continental Shelf Research*, **24**, 1083-1098.
18. Yankovsky, A. E., 2003: The cold water pathway during an upwelling event on the New Jersey shelf. *Journal of Physical Oceanography*, **33**, 1954-1966.
17. Yankovsky, A. E., B. M. Hickey, and A. K. Münchow, 2001: The impact of variable inflow on the dynamics of a coastal buoyant plume. *Journal of Geophysical Research*, **106**, 19,809-19,824.
16. Yankovsky, A. E., 2000: The cyclonic turning and propagation of buoyant coastal discharge along the shelf. *Journal of Marine Research*, **58**, 585-607.
15. Yankovsky, A. E., R. W. Garvine, and A. Münchow, 2000: Mesoscale currents on the inner New Jersey shelf driven by the interaction of buoyancy and wind forcing. *Journal of Physical Oceanography*, **30**, 2214-2230.
14. Yankovsky, A. E., and R. W. Garvine, 1998: Subinertial dynamics on the inner New Jersey shelf during the upwelling season. *Journal of Physical Oceanography*, **28**, 2444-2458.
13. Yankovsky, A. E., and D. C. Chapman, 1997b: A simple theory for the fate of buoyant coastal discharges. *Journal of Physical Oceanography*, **27**, 1386-1401.
12. Yankovsky, A. E., and D. C. Chapman, 1997a: Anticyclonic eddies trapped on the continental shelf by topographic irregularities. *Journal of Geophysical Research*, **102**, 5625-5639.
11. Yankovsky, A. E., and D. C. Chapman, 1996: Scattering of shelf waves by a spatially varying mean current. *Journal of Geophysical Research*, **101**, 3479-3487.

10. Yankovsky, A. E., and D. C. Chapman, 1995: Generation of mesoscale flows over the shelf and slope by shelf wave scattering in the presence of a stable, sheared mean current. *Journal of Geophysical Research*, **100**, 6725-6742.
9. Boguslavsky, S. G., V. A. Ivanov, and A. E. Yankovsky, 1996: Peculiarities of inertial currents in the Black Sea. *Morskoy Gidrofiz. Zhurnal**, No. 3, 58-68.
8. Boguslavsky, S. G., V. A. Ivanov, and A. E. Yankovsky, 1995: Peculiarities of the Rim Current regime off the Crimea. *Morskoy Gidrofiz. Zhurnal**, No. 3, 36-45.
7. Kochergin, S. V., and A. E. Yankovsky, 1995: Application of data filtering algorithm for a reconstruction of trapped waves' structure on the Crimean shelf. *Morskoy Gidrofiz. Zhurnal**, No. 5, 62-65.
6. Ivanov, V. A., and A. E. Yankovsky, 1994: Seawater dynamics on the Crimean shelf in summer. *Morskoy Gidrofiz. Zhurnal**, No. 3, 38-56.
5. Yankovsky, A. E., 1993: Scattering of barotropic shelf waves by the changing shelf width. *Izvestiya Acad. Nauk. Fiz. Atm. Okeana**, **29**, 369-376.
4. Ivanov, V. A., and A. E. Yankovsky, 1993: Local Dynamics Experiment in the shelf zone of Southern Crimean coast. *Okeanologiya**, **33**, 49-56.
3. Blatov, A. S., D. L. Vedev, V. A. Ivanov, and A. E. Yankovsky, 1991: Numerical modeling of long waves in the enclosed basins, *Vodnye Resursy**, No. 4, 89-97.
2. Ivanov, V. A., and A. E. Yankovsky, 1991: Influence of bottom topography and mean currents on the parameters of shelf waves. *Izvestiya Acad. Nauk. Fiz. Atm. Okeana**, **27**, 674-675.
1. Ivanov, V. A., and A. E. Yankovsky, 1991: The characteristics of trapped waves in the shelf zone of the South Crimean coast. *Okeanologiya**, **31**, 200-206.

 * These USSR journals were published in Russian and translated into English; they are indexed by Web of Science and Scopus.

§ Yankovsky's student.

Books, chapters and conference proceedings:

5. Smirnov, S. A., A. E. Yankovsky, D. L. Boyer, and P. G. Baines, 2007: Coastal-trapped wave scattering on topographic irregularities. In: *9th International Symposium on Fluid Control Measurement and Visualization 2007, FLUCOME 2007* (Vol. 1).
4. Ivanov, V. A., and A. E. Yankovsky, 1992: Water dynamics on the Crimean shelf in summer. In: *Problems of the Black Sea. Plenary reports*. CoMSBlack International Conference, Sevastopol, November 1992, pp. 136-149.
3. Ivanov, V. A., and A. E. Yankovsky, 1992: *Long-wave motions in the Black Sea*. Naukova Dumka, Kiev, 112 pp (in Russian).
2. Ivanov, V. A., and A. E. Yankovsky, 1992: Effect of hydrological conditions in the shelf zone of the Southern Crimean coast on the characteristics of coastally trapped waves. In: *Hydrophysical and hydrochemical research of the Black Sea*. Marine Hydrophysical Inst., Sevastopol, 58-65 (in Russian).
1. Ivanov, V. A., and A. E. Yankovsky, 1990: The generation of long waves in the Black Sea by the wind forcing. In: *Complex oceanographic research of the Black Sea*. Marine Hydrophysical Inst., Sevastopol, 58-75 (in Russian).

Selected abstracts:

- Yankovsky, A., G. Voulgaris, C. Papageorgiou, and D. Fribance. Role of internal waves in the Winyah Bay plume response to upwelling-favorable winds. Physics of Estuaries and Coastal Seas Meeting 2024, Bordeaux, France, 23-27 September, 2024. <https://pecs2024.sciencesconf.org/resource/page/id/8>

- Dykstra, S. L., A. E. Yankovsky, and G. Ricche. Cross-Shelf Plume Structures and Forcing Conditions on a Wide Continental Shelf, Winyah Bay, South Atlantic Bight. Abstract CP44A-1903 presented at 2024 Ocean Sciences Meeting, New Orleans, LA, 18-23 February 2024.
- Fribance, D. B., A. E. Yankovsky, and G. Voulgaris. Observations of a Tidally Pulsed Buoyant Plume: Winyah Bay, SC. Abstract CP44A-1907 presented at 2024 Ocean Sciences Meeting, New Orleans, LA, 18-23 February 2024.
- Gossman, A., D. B. Fribance, A. K. Hannides, A. E. Yankovsky, and G. Voulgaris. Nutrient Distribution in the Winyah Bay River Plume. Abstract CP44A-1906 presented at 2024 Ocean Sciences Meeting, New Orleans, LA, 18-23 February 2024.
- Papageorgiou, C. T., G. Voulgaris, A. E. Yankovsky, and D. B. Fribance. Kinematics and mixing processes of a buoyant plume exiting Winyah Bay, SC under upwelling favorable winds. Abstract CP41A-02 presented at 2024 Ocean Sciences Meeting, New Orleans, LA, 18-23 February 2024.
- Yankovsky, A. E., C. T. Papageorgiou, G. Voulgaris, and D. B. Fribance. Cross-shelf regime of the Winyah Bay plume under the upwelling-favorable wind forcing. Abstract CP44A-1904 presented at 2024 Ocean Sciences Meeting, New Orleans, LA, 18-23 February 2024.
- Yankovsky, A. (2023): Cross-shelf regime of coastal buoyant plumes under the upwelling- favorable wind forcing, XXVIII General Assembly of the International Union of Geodesy and Geophysics (IUGG) (Berlin 2023). <https://doi.org/10.57757/IUGG23-2155>
- Yankovsky, A., S. Dykstra, and G. Ricche. Forcing of cross-shelf plumes on a wide continental shelf, EGU General Assembly 2023, Vienna, Austria, 23–28 Apr 2023, EGU23-9000, <https://doi.org/10.5194/egusphere-egu23-9000>, 2023.
- Dykstra, S. L., E. Viparelli, O. Szot, S. A. Talke, A. E. Yankovsky, and R. Torres. Water Level Trend Variability from Tidal Oscillations, Charleston Harbor, USA. Abstract GC25F-0752, AGU Fall Meeting, Chicago, IL 12-16 December 2022.
- Yankovsky, A., and E. Yankovsky. Cross-shelf propagation of supercritical buoyant plumes driven by upwelling winds. Ocean Sci Meeting, online, 24 February – 4 March 2022.
- Ricche, G., and A. Yankovsky. Cross-shelf plumes originating from Winyah Bay, SC, USA. Ocean Sci Meeting, online, 24 February – 4 March 2022.
- Fribance, D., A. Yankovsky, D. Cahl, and G. Voulgaris. The importance of cross-shelf plumes. Ocean Sci Meeting, online, 24 February – 4 March 2022.
- Dykstra, S. L., R. Torres, A. E. Yankovsky, and E. Viparelli. The role of dams on tides and storm surge, Charleston Harbor. Abstract EP55E-1149 presented at the AGU Fall Meeting New Orleans, LA, 13-17 December, 2021.
- Yankovsky, A., and E. Yankovsky. Supercritical cross-shelf buoyant plumes driven by upwelling winds. Abstract presented at 7th International Conference on Estuaries and Coasts ICEC2021, October 18-21, 2021, Shanghai, China.
- Yankovsky, A. E., D. B. Fribance, D. Cahl, and G. Voulgaris. Offshore spreading and mixing of a supercritical plume under upwelling wind forcing: a case study of the Winyah Bay outflow. Virtual Physics of Estuarine and Coastal Seas Seminar Series 2020-2021, <https://www.io-warnemuende.de/v-pecs.html>
- Yankovsky, A. E., G. Voulgaris, and N. Hasan. Interior fronts in a coastal buoyant plume: scaling theory and observations. Abstract CP12B-04 presented at 2020 Ocean Sciences Meeting, San Diego, CA, 16-21 February 2020.
- Kaur, H., M. C. Buijsman, C.-H. Jeon, and A. E. Yankovsky. Quasi-Realistic Model Simulations of Hybrid Kelvin-Edge Waves in the Bay of Biscay. Abstract PL44B-2786 presented at 2020 Ocean Sciences Meeting, San Diego, CA, 16-21 February 2020.
- Deauna, J. D. L., A. E. Yankovsky, and R. R. Rykaczewski. Evaluation of the historical and future biogeochemical boundary conditions from earth system models for the California Current System. Abstract PI34A-2507 presented at 2020 Ocean Sciences Meeting, San Diego, CA, 16-21 February 2020.

- Igeta, Y., S. Abe, A. Kaneda, K. Fukudome, Y. Kunmaki, and A. E. Yankovsky. Relation between Lee-eddy Generation behind a Peninsula and Spatiotemporal Perturbation of the Coastal-current found in Wakasa Bay, Japan. Abstract PS34A-2916 presented at 2020 Ocean Sciences Meeting, San Diego, CA, 16-21 February 2020.
- Yankovsky, A., and G. Voulgaris. Interior fronts in a coastal plume formed by tidally-modulated estuarine outflow and upwelling-favorable wind. *Geophys. Research Abstracts*, vol. **21**, EGU2019—3522, EGU General Assembly 2019, Vienna, Austria, 7-12 April 2019.
- Yankovsky, A. E., and G. Voulgaris. Observations of a coastal buoyant plume formed by tidally-modulated estuarine outflow exposed to light upwelling-favorable wind. Physics of Estuaries and Coastal Seas Meeting 2018, Galveston, TX, 15-19 October, 2018. <http://2018.pecs-conferences.org/>
- Zhang, T., A. E. Yankovsky, A. R. Piola, and D. Valla. Semidiurnal Internal Tides over the Patagonian Shelf. Abstract PL34C-1851 presented at 2018 Ocean Sciences Meeting, Portland, OR, 12-16 February 2018.
- Yankovsky, A. E., and G. Voulgaris. Observations of a Coastal Buoyant Plume under a Flood-Induced High Freshwater Discharge and Light Upwelling-Favorable Wind Conditions. Abstract E34A-0285 presented at 2018 Ocean Sciences Meeting, Portland, OR, 12-16 February 2018.
- Kaur, H., M. C. Buijsman, A. E. Yankovsky, T. Zhang, and C.-H. Jeon. The Occurrence of Tidal Hybrid Kelvin-Edge Waves in the Global Ocean, Abstract OS31A-1385 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 December 2017.
- Yankovsky, A. Generation of internal waves by a semidiurnal barotropic Kelvin wave over wide continental shelves. Abstract OS19-A026 presented at 14th Annual Meeting Asia Oceania Geosciences Society, Singapore, 6-11 August 2017.
- Zhang, T., and A. Yankovsky. Internal wave generation by semidiurnal Kelvin waves. Abstract 28435 presented at ASLO 2017 Mountains to the Sea Aquatic Sciences Meeting, Honolulu, HI, USA, 28 February – 3 March 2017.
- Yankovsky, A. E., and I. Yashayaev. Hydrographic climatology in the Gulf of St. Lawrence: its recent trends and an estuarine regime of interannual variability. 18th Physics of Estuarine and Coastal Seas Conference, the Netherlands, 9-14 October 2016.
- Yankovsky, A., and T. Zhang. Cross-isobath energy fluxes in semidiurnal barotropic Kelvin waves propagating on wide continental shelves. *Geophys. Research Abstracts*, vol.**18**, EGU2016—4816, EGU General Assembly 2016, Vienna, Austria, 17-22 April 2016.
- Yankovsky, A., I. Yashayaev, and A. Frank. Hydrographic climatology in the Gulf of St. Lawrence: its recent trends and an estuarine regime of interannual variability. *Geophys. Research Abstracts*, vol.**18**, EGU2016—10856, EGU General Assembly 2016, Vienna, Austria, 17-22 April 2016.
- Zhang, T., and A. E. Yankovsky. Across-isobath energy fluxes in semidiurnal Kelvin waves encountering variations in shelf geometry. Abstract PO54E-3303 presented at 2016 Ocean Sciences Meeting, New Orleans, LA, USA, 21-26 February 2016
- Yankovsky, A., I. Yashayaev, and A. Frank. Hydrographic climatology in the Gulf of St. Lawrence: its recent trends and an estuarine regime of its interannual variability. Abstract PO52A-7 presented at 2016 Ocean Sciences Meeting, New Orleans, LA, USA, 21-26 February 2016.
- Melton, C., A. Yankovsky, and I. Yashayaev, 2015: Observations of intense internal mixing at the mouth of the Laurentian Channel. Abstract OS11A-2004 presented at 2015 Fall Meeting, AGU, San Francisco, CA, 14-18 December 2015.
- Iyer, S.K., M. Cloarec, and A.E. Yankovsky, 2014: Propagation of tidal and subtidal free surface oscillations into river channels from the South Atlantic Bight. Abstract OS11B-1290 presented at 2013 Fall Meeting, AGU, San Francisco, CA, 15-19 December 2014.
- Yankovsky, A., and I. Yashayaev, 2014: Surface buoyant plumes from melting icebergs in the Labrador Sea. *Geophysical Research Abstracts*, **16**, EGU2014-6996-1, EGU General Assembly, Vienna, Austria, 27

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- Yankovsky, A.E., and I. Yashayaev, 2014: Surface buoyant plumes from melting icebergs in the Labrador Sea. Abstract 14392 presented at 2014 Ocean Sciences Meeting, Honolulu, HI, USA, 23-28 February 2014.
- Yankovsky, A.E., L.M. Torres-Garcia, and R. Torres, 2012: Hydrodynamics of the transition zone from fluvial to tidal regime in the Santee River, SC, USA. Abstract EP42B-06 presented at 2012 AGU Fall Meeting, San Francisco, CA, USA, 3-7 Dec., 2012.
- Torres, R., K. Jeon, and A.E. Yankovsky, 2012: Some observations of channel properties at the fluvial-tidal transition. Abstract EP33A-0847 presented at 2012 AGU Fall Meeting, San Francisco, CA, USA, 3-7 Dec., 2012.
- Yankovsky, A.E., 2012: Long-wave coastal response to the landfall of tropical cyclone. BIT's 1st Annual World Congress of Ocean-2012. Dalian, China, 20-23 September 2012. Proceedings, p.86
- Yankovsky, A.E., 2012: Evolution of storm surge induced by a translating atmospheric cyclone in the presence of a bending coastline. Abstract 11777 presented at 2012 Ocean Sciences Meeting, Salt Lake City, UT, USA, 20-24 Febr. 2012.
- Soloviev, A., A. Yankovsky, and J.P. McCreary, Jr., 2012: Dynamics of southward flow under the Florida Current and coastal current in the Straits of Florida. Abstract 12521 presented at 2012 Ocean Sciences Meeting, Salt Lake City, UT, USA, 20-24 Febr. 2012.
- Jia, Y., and A. Yankovsky, 2012: The impact of ambient stratification on freshwater transport in a river plume. Abstract 11234 presented at 2012 Ocean Sciences Meeting, Salt Lake City, UT, USA, 20-24 Febr. 2012.
- Torres-Garcia, L.M., A.E. Yankovsky, and R. Torres, 2012: Along-channel momentum balance and tidal dissipation in the transition zone of the Santee River, SC, USA. Abstract 11540 presented at 2012 Ocean Sciences Meeting, Salt Lake City, UT, USA, 20-24 Febr. 2012.
- Yankovsky, A., and Z. Ke, 2011: Relative role of subinertial and superinertial long waves in the continental shelf response to the landfall of a tropical cyclone, *Geophysical Research Abstracts*, **13**, EGU2011-3854-1, EGU General Assembly, Vienna, Austria, 3-8 April 2011.
- Jia, Y., and A. Yankovsky, 2011: The impact of ambient stratification on freshwater transport in a river plume, *Geophysical Research Abstracts*, **13**, EGU2011-9186, EGU General Assembly, Vienna, Austria, 3-8 April 2011.
- Yankovsky, A., L. Torres-Garcia, and R. Torres, 2011: Interaction of tides, river discharge and bathymetric forms in the Santee River, SC, USA, *Geophysical Research Abstracts*, **13**, EGU2011-4865-1, EGU General Assembly, Vienna, Austria, 3-8 April 2011.
- Torres-Garcia, L., A. Yankovsky, and R. Torres, 2011: Tides at the upstream limit of their propagation in the Santee River, SC, USA; ASLO 2011 Book of Abstracts, p.256, Aquatic Sci. Meet., San Juan, Puerto Rico, 13-18 February, 2011.
- Torres, R., and A. Yankovsky, 2010: Channel Structure and Hydrodynamics Where Freshwater Fluvial and Tidal Currents Meet, *Geophysical Research Abstracts*, **12**, EGU2010-14261, EGU General Assembly, Vienna, Austria, 2-7 May 2010.
- Yankovsky, A. E., G. Maze, J. Rogers-Cotrone, and T. Weingartner, 2010: Offshore delivery of freshwater under conditions of spatially-variable downwelling-favorable winds, *Eos Trans. AGU*, **91**(26), Ocean Sci. Meet. Suppl., Abstract PO34C-03.
- Maze, G., and A. E. Yankovsky, 2010: Buoyant plume from multiple sources of freshwater in the presence of cyclonic wind field, *Eos Trans. AGU*, **91**(26), Ocean Sci. Meet. Suppl., Abstract PO35G-07.
- Ke, Z., and A. E. Yankovsky, 2010: A Numerical Study of the Long Wave Response to an Atmospheric Cyclone Landfall, *Eos Trans. AGU*, **91**(26), Ocean Sci. Meet. Suppl., Abstract PO45N-06.
- Torres, R., and A. E. Yankovsky, 2010: Effects of Tides on River Bathymetry, *Eos Trans. AGU*, **91**(26), Ocean Sci. Meet. Suppl., Abstract IT25F-11.
- Yankovsky, A., G. Maze, and J. Rogers-Cotrone, 2009: Freshwater Transport in the Coastal Buoyancy-

- Driven Current Affected by Variable Downwelling-Favorable Winds. P09.11/20417, MOCA-09, the IAMAS/IAPSO/ IACS 2009 Joint Assembly, Montréal, Canada, 19-29 July 2009.
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 - Smirnov, S., A. Yankovsky, D. Boyer, and P. Baines, 2008: Coastal-trapped wave propagation in the presence of submarine topography. Ocean Sciences Meeting, Orlando, FL, March 2-7, 2008. Meeting Abstracts, p. 378.
 - Yankovsky, A. E., 2007: Long-wave response of the West Florida shelf to the landfall of Hurricane Wilma, October 2005. IUGG XXIV General Assembly, Perugia, Italy, July 2-13, 2007, IAMAS, JMS010, p. 976.
 - Yankovsky, A. R. Sanay, and G. Voulgaris, 2007: Inner shelf transient downwelling fronts: the effect of curved coastline. IUGG XXIV General Assembly, Perugia, Italy, July 2-13, 2007, IAPSO, PS008, p.6000.
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 - Yankovsky, A. E., 2004: Interaction of transient wind currents with a buoyant plume. *Eos Trans. AGU*, **84** (52), Ocean Sciences Meeting, Portland, OR, 26-30 January 2004, Abstract OS31B-10.
 - Yankovsky, A. E., 2002: The onshore transport of cold water during an upwelling regime on the New Jersey shelf. *Eos Trans. AGU*, **83**(47), AGU Fall Meeting, San Francisco, CA, 6-10 December 2002, Abstract OS52C-0233.
 - Yankovsky, A. E., B. M. Hickey, and A. K. Münchow, 2001: The impact of variable inflow on the dynamics of a coastal buoyant plume. *Oceanography*, The Oceanography Society Meeting, Miami Beach, FL, 2-5 April 2001, **14**(1), 61.
 - Yankovsky, A. E., 2000: The upstream spreading of buoyant coastal discharge. *Eos Trans. AGU*, **80** (49), Ocean Sciences Meeting, San Antonio, TX, January 24-28, 2000, OS277.
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 - Yankovsky, A. E., and R. W. Garvine, 1998: Subinertial dynamics on the inner New Jersey shelf during the upwelling season. *Eos Trans. AGU*, **79**(1), Ocean Sciences Meeting, San Diego, CA, February 9-13, 1998, OS61.
 - Yankovsky, A. E., and D. C. Chapman, 1996b: A simple theory for the fate of buoyant coastal discharge. *Eos Trans. AGU*, AGU Fall Meeting, San Francisco, CA, December 15-19, Abstract OP12C-01.
 - Yankovsky, A. E., and D. C. Chapman, 1996a: Eddy formation by the nonlinear interaction of an unsteady shelf current with a steady slope current near a topographic irregularity. *Eos Trans. AGU*, **76**(3), Ocean Sciences Meeting, San Diego, CA, February 12-16, OS70.
 - Yankovsky, A. E., and D. C. Chapman, 1995: Generation of intense meso-scale flows over the continental

shelf by shelf wave scattering in the presence of a mean alongshore current. *Rapport du XXXIVe congrés de la CIESM*, La Valetta (Malta), **34**, 199.

Ivanov, V. A., and A. E. Yankovsky, 1992: Local Dynamics Experiment in the shelf zone of Southern Crimean Coast. *Rapports et proces-verbaux des reunions CIESM*, Trieste (Italy), **33**, 219.

Grant Support

- PI, NSF REU Supplemental award, \$9,036; 2024-2026.
- PI, NSF, Collaborative Research: Dynamics of Cross-Shelf Plumes under Upwelling Wind Conditions; Lead PI: D. Fribance (CCU), \$867,987 (total \$1,288,520), 2022-2026.
- Co-PI, UofSC ASPIRE-II, The impact of harbor modification on coastal floods - the case of Charleston, SC, PI: E. Viparely, other Co-PIs: E. Goahrian, R. Torres; \$100,000, 2020-2021.
- PI, UofSC ASPIRE-III, Quantifying turbulence and mixing across the estuary-ocean interface with a microstructure profiler, Co-PIs: A. Bourbonnais, G. Voulgaris, \$81,426, 2019-2021.
- PI, NSF REU Supplemental award, \$8,030; 2017-2018.
- PI, NSF, RAPID: Plume dynamics under increased sediment discharge following floods, \$70,129; Original PI: G. Voulgaris, Co-PI: A. Yankovsky. 2015-2017.
- Lead PI, NSF, Collaborative research: Generation of internal waves due to the scattering of semidiurnal hybrid Kelvin-edge waves at varying continental shelf topography. In collaboration with M. Buijsman (Univ. Southern Mississippi), \$262,320 (total \$489,463); 2015-2019.
- PI, UofSC APIRE-I, Preliminary sampling and scaling of the buoyant plume originating from melting iceberg in the Labrador Sea, \$14,997; 2013-2014.
- Co-PI, NSF, Channel Properties Where Fluvial and Tidal Currents Meet. PI: R. Torres, \$336,000; 2011-2015.
- PI, NSF REU Supplemental award, \$7,992; 2008-2009.
- PI, NSF, Large-scale edge waves generated by hurricane landfall, \$231,252; 2008-2012.
- PI, NSF, SGER: Transient shelf response to the Hurricane Wilma's impact, \$79,644; 2006-2008.
- Co-PI, NSF, Coupled Physical Numerical Models of the Nonlinear Interaction Between Coastal-Trapped Waves, Mean Current and Complex Topography. PI: D. Boyer (Arizona State Univ.), another Co-PI: P. Baines (CSIRO, Australia), \$375,000; 2002-2005.
- PI, NSF, Collaborative Research: Coastal Upwelling Circulation on a Wide Shelf: an Observational Study. In collaboration with R. Garvine and A. Münchow, Univ. Delaware, \$94,341 (total \$380,000); 2000-2003.
- PI, NSF, Buoyant Discharge on the Shelf in the Presence of Transient Currents: Nonlinear Interaction, Adjustment, Mixing, \$234,000; 1998-2002.

UofSC funding for undergrad students:

Gabrielle Ricche, Magellan Scholar award, \$2,750; 2021-2022.

Caleb Melton, Magellan Scholar award, \$2,900; 2015-2016.

Suneil Iyer, Magellan Scholar award, \$2,500; 2014-2015.

Grace Maze, Magellan Scholar award, \$2,999; 2009-2010.

Graduate Students

Major Professor:

- Mina Amiri, PhD, USC, Marine Science, *in progress*.
- Tianyi Zhang, PhD, 2018, UofSC, Marine Science.
- Isabella Moore, MS, 2024, USC, Marine Science.

- Nahid Hasan, MS, 2020, UofSC, Marine Science.
- Alejandro Frank, MS, 2015, UofSC, Marine Science.
- Legna Torres-Garcia, MS, 2014, UofSC, Geology.
- Yan Jia, MS, 2011, UofSC, Marine Science.
- Ziming Ke, MS, 2010, UofSC, Marine Science.
- John Rogers-Cotrone, MS, 2008, UofSC, Geology.

Advisory Committee Member:

PhD: 18 completed, 1 in progress (all UofSC).

MS: 15 completed (UofSC), 2 completed (Nova).

External Committee Member:

Harpreet Kaur, PhD candidate, Univ. Southern Mississippi, 2023.

Toan Bui, PhD, Univ. Western Australia (External Examiner), 2022.

Peter Washam, PhD, Univ. Delaware, 2019.

Grace Maze, PhD, RSMAS, Univ. Miami, 2015.

S everin Thiebaut, PhD, University of Otago, New Zealand (Overseas External Examiner), 2011.

Graduate Students – Summer Interns:

Malo Sergent, University of Toulon, France, 2012.

Marc Cloarec, University of Toulon, France, 2014.

Courses taught

University of South Carolina

MSCI/GEOL 215 *Coastal Environments of the Southeast US* (undergrad)

MSCI 312, 314 *Physical Oceanography* (undergrad)

MSCI 305 *Ocean Data Analysis* (undergrad)

MSCI 505 *Senior Seminar* (undergrad)

MSCI 509 *MATLAB-based Data Analysis in Ocean Sciences*

MSCI/GEOL 581 *Estuarine Oceanography*

MSCI/GEOL 582 *Marine Hydrodynamics*

MSCI 599A *Waves in the Ocean*

MSCI/GEOL 784 *Geophysical Fluid Dynamics*

MSCI/GEOL 785 *Atmospheric Dynamics*

Nova Southeastern University

OCOR 5601 *Concepts in Physical Oceanography*

MSPO 5210 *Coastal Dynamics*

MSPO 5250 *Waves in the Ocean*

MSPO 5260 *Nearshore Processes*

Research cruises

US/Canada

RV *Savannah*, May 2024, Winyah Bay/South Atlantic Bight, Chief Scientist.

RV *Savannah*, June 2023, Winyah Bay/South Atlantic Bight, Chief Scientist.

RV *Savannah*, April 2023, Winyah Bay/South Atlantic Bight.

RV *Coastal Explorer*, October 2022, Winyah Bay.
RV *Coastal Explorer*, May 2021, Winyah Bay.
RV *Coastal Explorer*, March 2020, Winyah Bay.
RV *Savannah*, November 2015, Winyah Bay/South Atlantic Bight, Chief Scientist.
RV *F. G. Walton Smith*, October 2015, Winyah Bay/South Atlantic Bight.
CCGS *Hudson*, May 2015, Labrador Sea, Halifax Line.
CCGS *Hudson*, May 2013, Labrador Sea, Gulf of St. Lawrence, Halifax Line.
RV *Endeavor*, May 2007, Long Bay/South Atlantic Bight.

USSR

RV *Ustritsa*, April 1993, Black Sea Northeastern Shelf, mooring deployment.
RV *Mikhail Lomonosov*, October 1992, Black Sea, Eastern Mediterranean, hydrography.
RV *Professor Kolesnikov*, August 1991, Eastern Mediterranean, head of hydrography group.
RV *Professor Kolesnikov*, July 1991, South Crimean Shelf/Black Sea, head of hydrography group.
RI (Research Icebreaker) *Otto Schmidt*, July-October 1985, Barents, Kara, Norwegian and Greenland Seas, hydrochemistry group, technician.
RV *Georgy Ushakov*, 1984, Black Sea, Mediterranean, North Atlantic, Ocean Weather Station *Charlie*, meteorology group, technician.

Service

NSF panelist, Division of Ocean Sciences, Physical Oceanography Panel (2005, 2013, 2020)
NASA/NOPP panelist (2022)

Guest Editor, Research Topic "River plumes and Estuaries" in *Frontiers in Marine Science*, 2020-2021

Sessions at AGU/ASLO meetings:

- 2016 Ocean Sciences Meeting Session: Climate Trends, Hydrographic Variability, Circulation, and Air-Land-Sea Interactions in the Marginal Seas of the North Atlantic. Session Convener and Chair;
- 2014 Ocean Sciences Meeting Session: Circulation, Mixing and Deep Water Formation in the Deep Basins of the North Atlantic and on the Adjacent Continental Shelves. Session Convener and Chair;
- 2012 AGU Fall Meeting Session: Channel Processes and Forms at the Fluvial-Tidal Transition. Session Convener and Chair;
- 2012 Ocean Sciences Meeting Session: Long Waves on Continental Shelves. Session Convener and Chair;
- 2010 Ocean Science Meeting Session: Freshwater Transport on Shelves, Slopes, and in Straits at High- and Mid-Latitudes. Session Convener and Chair;
- 1996 Ocean Science Meeting Session: Ocean Eddies: Numerical and Analytical Models. Session Chair.

Reviewer:

3-5 proposals and 7-9 journal papers per year over last five years.
External reviewer of tenure and promotion file (2024).

University service (only university/college level assignments are listed):

- University of South Carolina: Faculty Senate IT Committee, Committee on Scholastic Standards and Petitions, Faculty Senate Budget Committee (member and Chair), Magellan Scholar Committee (UofSC funding for undergraduate research), UofSC Faculty Senate, College of Arts and Sciences IT Advisory Committee.

- Nova Southeastern University: Faculty Advisory Council, SACS Compliance Certification Committee for Graduate and Professional Programs.

Selected school/departmental services:

Associate Director (Fall 2020, 2024-), Chair of Tenure and Promotion Committee (2022-23), Chair of faculty search committees (2019-2020, 2024-25), Marine Science Program Lead (2017-2020).