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Education

- Ph.D., University of Kansas, 1996
- M.S., University of Tennessee, 1993
- B.S., Augustana College, 1991

Research Interests

Carbonate sedimentology and stratigraphy, remote sensing, Geographic Information Systems, complex systems, quantitative sedimentology

Representative Publications

- 2004 **Rankey, E.C.**, 2004, On the interpretation of shallow shelf carbonate facies and habitats: How much does water depth matter? *Journal of Sedimentary Research*, 74, 2-6.
- Rankey, E.C.**, Enos, P. Steffen, K., and Druke, D., 2004, Lack of impact of Hurricane Michelle on tidal flats, Andros Island, Bahamas: Integrated remote sensing and field observations: *Journal of Sedimentary Research*, 74, 654-661.
- 2003 **Rankey, E.C.**, The use of critical thinking skills for teaching evolution in an introductory historical geology class: *Journal of Geoscience Education*, 51, 304-308
- Rankey, E.C.**, and Mitchell, J.C., That's why it's called interpretation: The role of horizon uncertainty on seismic attribute analysis: *The Leading Edge*, p. 820-828.
- Rankey, E.C.**, Carbonate coasts as complex systems: A case study from Andros Island, Bahamas: *Proceedings of the International Conference on Coastal Sediments 2003*. CD-ROM Published by World Scientific Publishing Corp. and East Meets West Productions, Corpus Christi, Texas, USA. ISBN 981-238-422-7.
- Rankey, E.C.**, Carbonate-filled channel complexes on carbonate ramps: an example from the Peerless Park Member [Keokuk Limestone, Viséan, Lower Carboniferous (Mississippian)], St. Louis, MO, USA: *Sedimentary Geology*, 155, 45-61
- 2002 **Rankey, E.C.**, and Morgan, J.J., Quantified rates of geomorphic change on a modern carbonate tidal flat: Andros Island, Bahamas: *Geology*, 30, 583-587
- Rankey, E.C.**, Spatial patterns of sediment accumulation on a Holocene carbonate tidal flat, northwest Andros Island, Bahamas: *Journal of Sedimentary Research*, 72, 591-601.
- 2000 Lehrmann, D. J., and **Rankey, E. C.**, Do meter-scale cycles exist? A statistical evaluation from vertical (1D) and lateral (2D) patterns in shallow marine carbonate-siliciclastic strata of the Seven Rivers Formation, Slaughter Canyon, New Mexico: *in* (Harris, P.M., et al., eds.), *Geologic*

framework of the Capitan Reef: *SEPM Concepts in Sedimentology*.

- 1999 **Rankey, E.C.**, Bachtel, S.L., and Kaufman, J., Controls on stratigraphic architecture of icehouse mixed carbonate-siliciclastic systems: A case study from the Holder Formation (Pennsylvanian, Virgilian), Sacramento Mountains, New Mexico: *in* (Harris, P.M., et al., eds.) Recent advances in carbonate sequence stratigraphy: Applications to reservoirs, outcrops, and models: *SEPM Special Publication* 63, 127-150.

Watney, W.L., **Rankey, E.C.**, and Harbaugh, J., Perspectives on stratigraphic simulation models: Current approaches and future opportunities: *in* (Harbaugh, J., Watney, W.L., **Rankey, E.C.**, et al., eds.) Numerical Experiments in Stratigraphy: Recent advances in stratigraphic and sedimentologic computer simulations: *SEPM Special Publication* 62, 3-21.

Rankey, E.C., Relations between relative changes in sea level and climate shifts: Pennsylvanian - Permian mixed carbonate-siliciclastic strata, western U.S.A.: Reply: *Geological Society of America Bulletin*, 469-472.

- 1997 **Rankey, E.C.**, and Farr, M.R., Preserved pedogenic mineral magnetic signature, pedogenesis, and paleoclimate change: Pennsylvanian Roca Shale (Virgilian, Asselian), central Kansas, U.S.A.: *Sedimentary Geology*, 114, 11-32.

Rankey, E.C., Relations between relative changes in sea level and climate shifts: Pennsylvanian - Permian mixed carbonate-siliciclastic strata, western U.S.A.: *Geological Society of America Bulletin*, 109, 1089-1100.

- 1996 **Rankey, E.C.**, and Lehrmann, D.J., Anatomy and origin of toplap in a mixed carbonate-clastic system: Seven Rivers Formation, Slaughter Canyon, Guadalupe Mountains, New Mexico, U.S.A.: *Sedimentology*, 43, 807-826.

- 1994 **Rankey, E.C.**, Walker, K.R., and Srinivasan, K., Gradual establishment of lapetan "passive" margin sedimentation: Stratigraphic consequences of Cambrian episodic tectonism and eustasy, southern Appalachians: *Journal of Sedimentary Research*, B64, 298-310.

More Info:

<http://mgg.rsmas.miami.edu/faculty/grankey/grankey.htm>

[Comparative Sedimentology Laboratory](#) (CSL)

[Center for Southeastern Advanced Tropical Remote Sensing](#) (CSTARS)