

SEMINAR SERIES

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Pacific Forum



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Model-Data comparisons of hydrologic change across North Atlantic through the PETM

As Earth continues to warm due to anthropogenic emissions, weather patterns are predicted to become more extreme. There is a need to understand how these regional changes will manifest, as any changes can have dramatic impacts on water resource management, hydroelectric power generation, agriculture, and disaster planning. In this seminar, Will Rush presents evidence for hydrologic change through the Paleocene-Eocene Thermal Maximum (55 million years ago) from sites in the Mid-Atlantic coast of the United States and Spain. He compares these observations to earth system model output to test the capabilities of modeling hydrologic changes. There are significant differences in the atmospheric dynamics driving hydrology at eastern and western ocean boundaries. Therefore, these sites will allow for a thorough testing of the model's capabilities and provide insight into regional hydrologic change in a rapidly warming world.