



## **Interactive analysis and visualization of massive earth system models using VAPOR**

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Recent trends in earth system modeling are leading to a dramatic increase in the size of simulation outputs; however current visualization and analysis capabilities do not readily scale with the increased simulation size. VAPOR is a visualization and analysis package that was designed to enable interactive visualization and analysis of these large datasets, using a wavelet-based multiscale data model. VAPOR runs on Mac, Windows and Linux desktops, exploiting the power of modern graphics cards. VAPOR includes several features to facilitate interactive analysis of earth system data, such as built-in support for Python/NumPy scripting, streamlines, particle tracing and geo-referencing. In this presentation the capabilities of VAPOR will be described and applied to various earth system models. We shall show how to use VAPOR to interactively browse and analyze these large datasets, such as the results of the POP ocean model and the WRF-ARW weather model.