

NWS06-2006-000033

Abstract for an Invited Paper
for the NWS06 Meeting of
the American Physical Society

Einstein and the Quantum: The Secret Life of EPR

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Locality, separation and entanglement – 1930s style. Starting with Solvay 1927, we'll explore the background to the 1935 paper by Einstein, Podolsky and Rosen: how it was composed, the actual argument and principles used, and how the paper was received by Schroedinger, and others. We'll also look at Bohr's response: the extent to which Bohr connects with what Einstein was after in EPR and the extent to which EPR marks a shift in Bohr's thinking about the quantum theory. Time permitting, we will contrast EPR with Bell's theorem.