

Abstract Submitted
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Presence of Inertial Induction in General Relativity L.L. WILLIAMS, Konfluence Research Institute — The title of our presentation plays on the title of the Brans (1977) paper in PhysRev, "Absence of inertial induction in general relativity." We revisit ideas of inertial induction and Mach's principle in general relativity, including early prescient work by Einstein on inertia in 1921. We find there appear to in fact be effects on local systems from the gravitational field of the universe, just not the ones Brans was considering. Brans's main concern was in regard to the Equivalence Principle, so we address those concerns as well. Since "inertial induction" is a loosely-defined term, it seems fair to broaden its interpretation slightly to deliver a verdict opposite to that of Brans in 1977.

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