1046-37-705 **Daniel J. Rudolph*** (rudolphd@math.colostate.edu), Dept. of Mathematics, Colorado State University, 1874 Campus Delivery, Fort Collins, CO 80523. *Using orbit equivalence as a model for ergodic systems.*

There are two classical model spaces for measure preserving dynamical systems, the Lebesgue measure preserving maps of the unit interval in the strong operator topology and the shift invariant Borel probability measures on $[0,1]^{\mathbb{Z}}$. I will describe a third, the measure preserving maps orbit equivalent to some fixed aperiodic and ergodic transformation endowed with the Halmos metric. Generic behavior is the same in all three models. I will discuss the problem of extending work with Matt Foreman and Benjy Weiss on the complexity of the isomorphism relation in ergodic theory to this model. (Received September 10, 2008)