1042-03-94 **Samuel Coskey*** (scoskey@math.rutgers.edu), Department of Mathematics, The CUNY Graduate Center, 365 Fifth Ave, New York, NY 10016. *Borel equivalence relations.*

Often a "classification problem" can be regarded as an equivalence relation on a standard Borel space (*i.e.*, a Polish space equipped just with its σ-algebra of Borel sets). For instance, the classification problem for countable linear orders (on ω) corresponds to the isomorphism equivalence relation on a suitable subspace of $2^{\omega\times\omega}$. This allows for an analysis of the complexity of the isomorphism problem for many classes of countable structures using techniques from an area of descriptive set theory called Borel equivalence relations. In this talk we shall describe some recent and important results in Borel equivalence relations, as well as a couple of interactions with model theory. (Received August 12, 2008)