

The minimal flows of S_∞

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If G is a topological group, a G -flow is a compact space equipped with a continuous action of G . Of special interest are the minimal flows (those that do not admit proper subflows) because of their rich structure and the fact that any flow must contain a minimal subflow. In the case where G is locally compact, non-compact, there is a great variety of minimal flows and a classification seems to be infeasible. On the other hand, for many naturally occurring non-locally compact groups, there is only one minimal flow—a single point—and the situation trivializes. In this talk, I will concentrate on an intermediate example, that of the group of all permutations of the integers, S_∞ . It turns out that S_∞ has only countably many minimal flows that can be described quite explicitly (they are all given by the logic action of S_∞ on the space of models of certain universal theories). This classification relies in an essential way on previous work of Glasner and Weiss, who had identified the universal minimal flow of S_∞ , of which all other minimal flows are quotients.