1077-55-2649   **John D. Foley*** (`jfoley@ucsd.edu`). *Homotopy Kac-Moody groups and infinite pseudoreflection groups.* Preliminary report.

Finite complex pseudoreflection groups appear as the Weyl groups of p-compact groups and faithfull p-adic representations of these Weyl groups are central to the recent classification of p-compact groups. Kac-Moody groups, which are a generalization of Lie groups, have Weyl groups with natural integral representations, but these Weyl groups are infinite crystallographic Coxeter groups in all non-Lie cases. Progress in the representation theoretic approach to the p-local homotopy theory of Kac-Moody groups suggests a path toward a notion of homotopy Kac-Moody groups with infinite pseudoreflection Weyl groups. However, in contrast to infinite Coxeter groups, the theory of infinite pseudoreflection groups is not well-developed. This talk will focus on which infinite complex pseudoreflection groups are suitable candidates for the Weyl groups of homotopy Kac-Moody groups and include relevant examples. (Received September 22, 2011)