1016-37-40 **Karin H. Melnick*** (karin@math.uchicago.edu), Department of Mathematics, University of Chicago, 5734 S University Ave, Chicago, IL 60637. *Compact Lorentz manifolds with local symmetry.* Preliminary report.

Some important classes of compact geometric manifolds, such as hyperbolic manifolds, have paltry isometry group but abundant local symmetry. I will present a structure theorem for compact aspherical Lorentz manifolds with abundant local symmetry. This result is analogous to a theorem of Farb and Weinberger on compact aspherical Riemannian manifolds. Lorentz isometry groups can have more complicated dynamics than Riemannian isometry groups. I will focus on the case with strong dynamics and describe the main tool, lightlike foliations that arise from nonproper isometric actions. (Received January 16, 2006)