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)