1070-55-166　　　　　　**Christine Escher*** (`tine@math.orst.edu`), Department of Mathematics, Oregon State University, Corvallis, OR 97330, and **Wolfgang Ziller**, University of Pennsylvania. *Topology of non-negatively curved manifolds.* Preliminary report.

In contrast to the positive curvature setting, there exist comparatively many examples with non-negative sectional curvature. Hence it is natural to ask whether, among the known examples, it is possible to topologically distinguish manifolds with non-negative curvature from those admitting positive curvature. In joint work with Wolfgang Ziller we address this question. In this talk, after briefly reviewing some of the history, I will describe the topology of two specific families of non-negatively curved manifolds in dimension seven and compare them to known examples of manifolds of positive curvature. (Received February 09, 2011)