Igor Belegradek*, School of Mathematics, Georgia Tech, Atlanta, GA 30332-0160, and Slawomir Kwasik and Reinhard Schultz. On uniqueness and non-uniqueness of souls. Preliminary report.

Very little is known about the moduli space of complete non-negatively curved metrics on an open manifold. In the talk I will focus on metrics with souls of codimension one and two. There the geometry is quite rigid, yet the moduli space may be disconnected. In studying these matters one is quickly led to nontrivial problems from higher-dimensional topology, and most of the talk will have strong topological flavor. (Received January 12, 2009)