

### **The Riemannian Penrose inequality in dimensions less than 8**

The Riemannian Penrose inequality was first proved in three dimensions in 1997 by G. Huisken and T. Ilmanen for the case of a single black hole. In 1999, H. Bray extended this result to the general case of multiple black holes using a different technique. I will discuss joint work with H. Bray on extending Bray's technique to dimensions less than 8.