

# THE GEOMETRY OF RICCI SOLITONS

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ABSTRACT. I will present recent development about the structure of four dimensional shrinking Ricci solitons. I will show how some basic information about scalar curvature allows us to better understand such solitons. For example, assuming the scalar curvature is bounded, these manifolds must have their curvature operator non-nengative at infinity. Furthermore, if the scalar curvature converges to zero, then they are asymptotically conical. Some generalizations in higher dimension will also be discussed. This talk is based on joint work with Jiaping Wang.