Oberseminar Geometrie
Department of Mathematics
University of Fribourg
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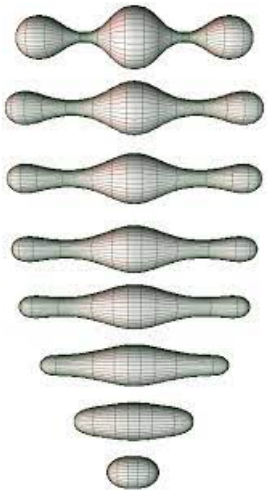

Masoumeh Zarei (Uni Münster)

Susceptibility of positive curvature conditions under the Ricci flow

Since the introduction of Ricci flow by Hamilton in 1982, it has been a fundamental question to understand the evolution of metrics and their curvature conditions under the flow. While positive scalar curvature and 2-positive curvature operator are preserved in all dimensions, there exist infinitely many dimensions where certain curvature conditions lying in between are not preserved. In this talk, I first recall some basics about homogeneous Ricci flow. Then, I present joint works with David González-Álvaro in which we examine metrics with different curvature conditions on various homogeneous spaces and discuss the evolution of their metrics under the Ricci flow.