4-dimensional weakly-Einstein manifolds

Teresa Arias-Marco

Weakly Einstein Riemannian manifolds were defined on any dimension by Y. Euh, J. Park and K. Sekigawa in [2]. They did so as an application of a curvature identity obtained using the generalized Gauss-Bonnet formula for compact and oriented Riemannian manifolds of dimension four.

The talk will show the known results related to this type of manifolds. In particular, their relation with Einstein manifolds and its 4-dimensional classification in the homogeneous case [1].

I deeply thanks Prof. O. Kowalski for introducing me in this interesting research line.

References

[1] T. Arias-Marco, O. Kowalski. *Classification of 4-dimensional homogeneous weakly Einstein manifolds*. Czechoslovak Math. J. **65** (2015) 21-59.

[2] Y. Euh, J. Park and K. Sekigawa. *A curvature identity on a 4-dimensional Riemannian manifold*. Results Math. **63** (2013) 107-114.