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Miguel Domínguez-Vázquez, David González-Álvaro and Lawrence Mouillé*
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Positive k^{th} -intermediate Ricci curvature ($\text{Ric}_k > 0$) on a Riemannian n -manifold is a condition that interpolates between positive sectional curvature (when $k = 1$) and positive Ricci curvature (when $k = n - 1$). In particular, the smaller the value of k , the more restrictive the curvature condition $\text{Ric}_k > 0$. In this talk, we will present closed homogeneous spaces with $\text{Ric}_k > 0$ for small values of k . Specifically, we will consider symmetric spaces, normal homogeneous spaces, and metric deformations of certain homogeneous bundles. We will highlight the families of generalized Aloff-Wallach spaces, which are simply connected, are of pairwise distinct homotopy type, and admit metrics with $\text{Ric}_k > 0$ for k small. (Received March 09, 2021)