

1106-53-1395

Christopher Stuart Inbody* (csinbody@unm.edu), 6301 Lamy St NW, Albuquerque, NM 87120. *Positive Sasakian structures on 5 and 7 dimensional links of hypersurface singularities and isolated complete intersection singularities in weighted projective space.* Preliminary report.

Links of isolated singularities defined by weighted homogeneous polynomials have a natural Sasakian structure. Since it is known that Sasaki-Einstein metrics have positive Ricci curvature, and since positive Sasakian structures give rise to Sasakian metrics with positive Ricci curvature, it is useful to determine which links have a positive Sasakian structure. This corresponds to the Fano index of the associated weighted projective variety being positive. Links of dimension $2n - 1$ are $(n - 2)$ -connected. Complete results for dimension 3 were obtained by Milnor, Orlik, and Arnol'd. A complete result for hypersurface singularities with positive Sasakian links of dimension 5 was provided by Yau and Yu. This paper investigates isolated singularities of codimension 2 complete intersections with 5 dimensional links of positive index and some higher dimensional results. (Received September 12, 2014)