

1135-53-1862

Renato G. Bettiol* (rbettiol@math.upenn.edu), University of Pennsylvania, Department of Mathematics, 209 South 33rd Street 4W1, Philadelphia, PA 19104. *Sectional curvature and Weitzenböck formulae.*

We prove an algebraic characterization of any lower or upper sectional curvature bound in terms of the curvature terms in the Weitzenböck formulae for symmetric p -tensors. By introducing a symmetric analogue of the Kulkarni-Nomizu product, we also derive an explicit formula for such curvature terms, as a function of scalar, traceless Ricci, and Weyl curvatures. This is based on joint work with R. Mendes. (Received September 25, 2017)