

1159-53-18

**Anthony D Gruber\*** ([anthony.gruber@ttu.edu](mailto:anthony.gruber@ttu.edu)). *Codazzi tensors with parallel mean curvature.*

We address the local-to-global structure of submanifolds in space forms admitting a tensor which satisfies Codazzi equations. In particular, it is shown that simply connected submanifolds of nonnegative sectional curvature which admit a Codazzi tensor with parallel trace are product manifolds with factors determined by the spectrum of this tensor. The relationship of this result to submanifolds with parallel mean curvature is discussed, as well as its consequences for Einstein submanifolds and submanifolds with parallel Ricci tensor. (Received June 29, 2020)