

1064-53-259

Thomas A Ivey and **Patrick J Ryan*** (ryanpj@mcmaster.ca), Department of Mathematics and Statistics, McMaster University, Hamilton, ON L8S4K1, Canada. *The *-Ricci tensor for hypersurfaces in complex space forms.*

The *-Ricci tensor of an almost-Hermitian manifold was introduced by Tachibana in 1959 and was later used (along with the related concept of *-Einstein) in work on the Goldberg conjecture, for example, by Oguro and Sekigawa. These ideas also apply naturally to contact metric manifolds, and in particular, to hypersurfaces in complex space forms, where they were introduced by T. Hamada.

In this talk, we refine, clarify, and extend Hamada's classification of *-Einstein Hopf hypersurfaces in the complex space forms \mathbf{CP}^n and \mathbf{CH}^n . We also address existence questions using the methods of moving frames and exterior differential systems. (Received September 12, 2010)