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**Albert J. Todd\*** (ajtodd@southalabama.edu). *Almost Contact Structures and  $G_2$ -Manifolds*. Preliminary report.

Arikan, Cho and Salur proved that any 7-manifold with  $G_2$ -structure admits an almost contact structure which is compatible with the  $G_2$ -metric. In this talk I will review this construction then show that on a  $G_2$ -manifold, that is, a 7-manifold with integrable  $G_2$ -structure, their construction leads to a normal almost contact structure if the characteristic vector field is a Killing vector field for the  $G_2$ -metric. This has some immediate consequences regarding CR-structures and cosymplectic structures on a  $G_2$ -manifold. Finally, I will show that these ideas can be extended to give an almost contact 3-structure on a compact  $G_2$ -manifold without boundary. (Received September 16, 2014)