1083-57-28 J Etnyre* (etnyre@math.gatech.edu), R Komendarczyk and P Massot. Contact geometry and Riemannian metrics: a contact version of the sphere theorem.

Since the work of Chern and Hamilton there has been a great deal of work studying Riemannian metrics adapted to contact structures, but most of this work has focused on properties of the Riemannian metric. There have been few results concerning properties of the contact structure in terms of the Riemannian metric. This talk can be viewed of a continuation of Komendarczyk's talk, where he discuss a "quantitative Darboux theorem". Building on this work I will discuss a "contact sphere theorem": if you have a contact 3-manifold and a metric adapted to it with positive 4/9-pinched curvature then the manifold is the sphere and the contact structure is standard. (Received July 22, 2012)