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Dimiter Vassilev* (dvassilev@math.ucr.edu), Department of Mathematics and Statistics,
Albuquerque, NM 87131. *On some problems concerning the conformal geometry of quaternionic
contact structures.*

The Yamabe problem on the standard sphere in quaternionic space, including a complete solution in the seven dimensional case, will be presented. A tensor similar to the Weyl conformal curvature in Riemannian geometry and to the Chern-Moser invariant in CR geometry will be described. (Received August 17, 2007)