1083-53-17   **Gianluca Bande**, Dipartimento di Matematica e Informatica, Università degli studi di Cagliari, Via Ospedale 72, 09124 Cagliari, Italy, **David E. Blair*** (`blair@math.msu.edu`), Department of Mathematics, Michigan State University, East Lansing, MI 48824, and **Amine Hadjar**, Laboratoire de Mathématiques, Informatiqu, Université de Haute Alsace-4, Rue de Fréres Lumiére, 68093 Mulhouse, France. *Curvature of contact metric manifolds and metric contact pairs (bicontact manifolds).*

We begin with a general survey of contact geometry from the Riemannian point of view including a number of curvature properties.

Then we discuss the idea of a contact pair, Reeb vector fields, characteristic foliations and metric contact pairs (MCPs). A 6-dimensional example with orthogonal characteristic foliations which is not a locally Riemannian product manifold will be presented.

Turning to joint work on MCPs, basic properties of the curvature tensor and the Ricci curvature in the direction of the sum of the two Reeb vector fields will be given. This leads to the result that flat non-Kähler Vaisman manifolds do not exist. A local classification of MCPs whose curvature vanishes on the vertical subbundle will be given. As a corollary flat associated metrics only exist if the leaves of the characteristic foliations are at most three-dimensional.

Turning to symmetry we prove that the universal covering of a complete locally symmetric normal MCP is a Calabi-Eckmann manifold. Moreover a complete, simply connected, normal MCP with regular vertical foliation such that reflections in the leaves are isometries, is the product of globally ϕ-symmetric spaces and fibers over a locally symmetric space endowed with a symplectic pair. (Received August 03, 2012)