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This is a brief expository talk on recent work on complex contact metric manifolds. After reviewing the ideas surrounding these manifolds, the notion of normality will be discussed in some detail. Then recent work (Blair, Mihai) on locally symmetric normal complex contact metric manifolds along with the role played by reflections in the integral submanifolds of the vertical subbundle will be discussed.

In Hermitian geometry the Bochner tensor plays the role of the conformal curvature tensor in Riemannian geometry. Treating these ideas in the normal complex contact metric setting (Blair, Martín-Molina), the Bochner flat case gives odd-dimensional complex projective space. It is also shown that there are no conformally flat normal complex contact metric manifolds. (Received August 18, 2010)