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Boris Khesin* (khesin@math.toronto.edu), Dept. of Mathematics, Univ. of Toronto, Toronto, ON M5S 2E4, Canada, and **Serge Tabachnikov** (tabachni@math.psu.edu), Dept. of Mathematics, Penn State University, University Park, PA 16802. *Contact complete integrability.*

Complete integrability in a symplectic setting means the existence of a Lagrangian foliation preserved by the dynamic leaf-wise. We describe complete integrability in a contact setting as the existence of a co-Legendrian foliation with an invariant transverse measure. We present an example of contact complete integrability: a Poncelet-type theorem for null geodesics on an ellipsoid in a pseudo-Euclidean space. (Received August 31, 2009)