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Igor Zelenko* (zelenko@math.tamu.edu), Department of Mathematics, Mailstop 3368, Texas A&M University, College Station, TX 77843. *Rauch and Bonnet-Myers type comparison theorems in sub-Riemannian geometry.*

We will give estimates for the number of conjugate points along extremals of a general sub-Riemannian metric in terms of curvature-type invariants of this metric. These estimates generalize the classical Rauch and Bonnet-Myers comparison theorems in Riemannian Geometry and they are based on the differential geometry of curves in Lagrangian Grassmannians developed in my previous works with Chengbo Li. The special emphasis will be given to the case of sub-Riemannian metrics on distributions of rank 2 where the formulation of the comparison theorems is especially simple. (Received February 11, 2014)