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**Robert L Foote\*** (foote@wabash.edu), Dept of Math & CS, Wabash College, Crawfordsville, IN 47933, and **C K Han** and **J W Oh**. *Infinitesimal Isometries along Curves and Generalized Jacobi Equations*.

A variation of a geodesic segment on a Riemannian manifold  $M$  gives rise to a Jacobi field along the segment in a well-known way. We define a rigid variation of a  $C^2$  curve on  $M$  and show that it gives rise to a generalized “Jacobi field” that is a section of the bundle of 1-jets of vector fields along the curve. This defines a connection on this bundle. We study the curvature and holonomy of this connection, which are obstructions to local infinitesimal isometries, and discuss possible applications. This is joint work with C.K. Han and J.W. Oh of Seoul National University. (Received February 09, 2014)