Firas Y Hindeleh* (hindelef@gvsu.edu), 1 Campus Dr., Allendale, MI 49401, and Gerard Thompson (gerard.thompson@utoledo.edu), 2801 W Bancroft St, Toledo, OH 43606. Killing's equations for invariant metrics on Lie groups.

We investigate symmetry and curvature properties of a right-invariant metric on a Lie group. This talk will consider Lie groups in dimension two and three and will focus on the solutions of Killing's equations. A striking result is that several of the three-dimensional Lie groups turn out to be spaces of constant curvature. (Received September 13, 2010)