1046-51-963   **David W. Henderson*** (`dwh2@cornell.edu`). *Geometry is Natural.* Preliminary report.

There is some power in formalisms of geometry (whether differential, Euclidean, non-Euclidean, projective, or finite). However, there is little agreement about which formalisms to use and about how to describe them, with the result that the starting definitions, notations and analytic descriptions vary widely from textbook to textbook. What all of these different approaches have in common are underlying geometric intuitions of the basic notions such as straightness (geodesic), smooth, tangent, curvature, and parallel transport. In this talk, I will discuss some of the negative affects of formalism and how to avoid them thru geometric experiences. (Received September 13, 2008)