1114-35-237 **Robert R Jensen*** (rjensen@luc.edu), 1032 W. Sheridan Rd, Chicago, IL 60660. A Geometric Derivation of the Maximum Principle and Applications. Preliminary report.

I will describe a geometric derivation of the maximum principle for elliptic partial differential equations which is particulary applicable to viscosity solutions. By slightly modifying this approach I will recover results previously proved by Yifeng Yu on the gradient of C^2 infinity harmonic functions. (Received August 28, 2015)