

Abstract Submitted  
for the NWS09 Meeting of  
The American Physical Society

**Looking toward the Horizon, a revisit of Gaussian Curves**

RICHARD KRISKE, University of Minnesota — On a curved surface such as the Earth, there is a special line that does not behave like any other, and that is the Horizon. If the Earth were flat a magnification of the horizon with a telescope would reveal a world identical to the one in which the observer is situated. The distant features would enlarge and ignoring atmospheric problems a larger telescope would reveal a further feature that would enlarge in the same manner. Of course a curved surface such as the Earth reveals something different, the Horizon is a mathematical line that is much different, magnifying the line shows features that are tilted away from the observer at a predictable angle easily calculated from the overall curvature of the sphere. Although this observation is obvious to anyone who has spent time with Gaussian theory, or with a pair of binoculars, it has been largely ignored in both Astrophysics and in (looking downward) particle physics, although in both cases a similar experimental phenomena has been observed (small things do not behave like large things) that seem to have similar ratios to curved surface calculations of tilting at the horizon. The author proposes a way to reconcile these special lines with Curvature, at least as an abstraction.

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Date submitted: 07 Apr 2009

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