1158-42-95   **Benjamin Cowen*** (`benjamin.cowen.math@gmail.com`). *Uncertainty Propagation through the Logarithmic Derivative of a Convolution.* Preliminary report.

During explosive experiments, acquired data must be *stored* far away from where they are *detected.* In the mid-20th-century, such detected signals were often transmitted to storage devices by very long (multi-kilometer) systems of coaxial cables. The signal of interest to us is the logarithmic derivative of the measured one, called *alpha*, making the total system from detection to alpha nonlinear. We seek to identify and characterize factors that could have distorted our data en route through the electromagnetic cable system. We present an analysis of how errors in a cable's parameters propagate to uncertainty in the alpha signal. (Received February 24, 2020)