

Ignorance Score [Proper, Local, Feasible]

$$S(p, v) = -\log_2(p(v)) \tag{1}$$

The Ignorance score, so named in Brier and Smith [2] is the same as the logarithmic score proposed by I J Good [3] in 1952. This is a Feasible, Proper and Local score. In his paper Scoring Rules for Forecast Verification, R Benedetti [1] notes that only the Ignorance score is Local and Proper (up to affine transformation).

Bibliography

- [1] R. Benedetti. Scoring rules for forecast verification. Mon. Wea. Rev., 138:203 – 211, 2010.
- [2] J. Brocker and L. Smith. Scoring probabilistic forecasts: The importance of being proper. Weather and Forecasting, 22:382, 2005.
- [3] I. J. Good. Rational decisions. Journal of the Royal Statistical Society. Series B, 14(1):107–114, 1952.