

**Fairness** Ficker et al [1] define a property they call Fairness. The property Fairness relates to the evaluation of ensembles. They state there are at least three interpretations of ensembles (1) that they define the only outcomes the forecaster believes are possible and are equally probable, (2) the ensembles represent a collection of functionals of the distribution (such as mean, median or quantiles and (3) that the ensemble outcomes are a random sample from the predictor’s belief distribution. Using interpretation 3 they say that a skill score will be Fair if given a forecaster is required to issue a random sample from some distribution then the expected score (using the distribution they truly believe is correct) will be maximised when they choose a distribution equal to their beliefs. They define strictly fair when the expectation is uniquely optimised by the belief distribution.

# Bibliography

- [1] T. Fricker, C. Ferro, and D. Stephenson. Three recommendations for evaluating climate predictions. Meteorological Applications RMetS, 20:246–255, 2013.