



**Sixth Bayesian, Fiducial, and Frequentist (BFF6)
Conference on Model Uncertainty
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SPEAKER TITLES/ABSTRACT

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"Blends of Bayesian and Frequentist Inference"

Blended inference draws on strengths of the frequentist and Bayesian theories of statistics. In one recipe, Bayesian inference is used when the prior distribution is known, frequentist inference when nothing is known about the prior, and a blend of both when there is some knowledge about the prior.

If the confidence distribution that corresponds to frequentist inference is practically consistent with the set of posterior distributions derived from the set of priors, then the confidence distribution alone is enough for inference. If not, it exerts a strong influence on inferences drawn on the basis of the set of posterior distributions.

That blend is illustrated for the hypothesis testing case by a simple combination of a confidence distribution with a set of plausible posterior probabilities.