NIST Decision Tree Report

Summary

Include	Laboratory	Result	Uncertainty	DegreesOfFreedom
TRUE	IRMM	34.30	1.03	60
TRUE	KRISS	32.90	0.69	4
TRUE	NARL	34.53	0.83	18
TRUE	NIST	32.42	0.29	2
TRUE	NMIJ	31.90	0.40	13
TRUE	NRC	35.80	0.38	60

Date: 2023-04-13
Version Number: 1.0.0
Type of DoE: Degrees of Equivalence for Trade
Selected Procedure: Adaptive Weighted Average
Consensus estimate: 33.6
Standard uncertainty: 0.745
Standard uncertainty (using parametric bootstrap): 0.7767
95% coverage interval: (32.14, 35.06)
95% coverage interval (using parametric bootstrap): (32.1, 35.1)
Dark uncertainty (tau): 1.711

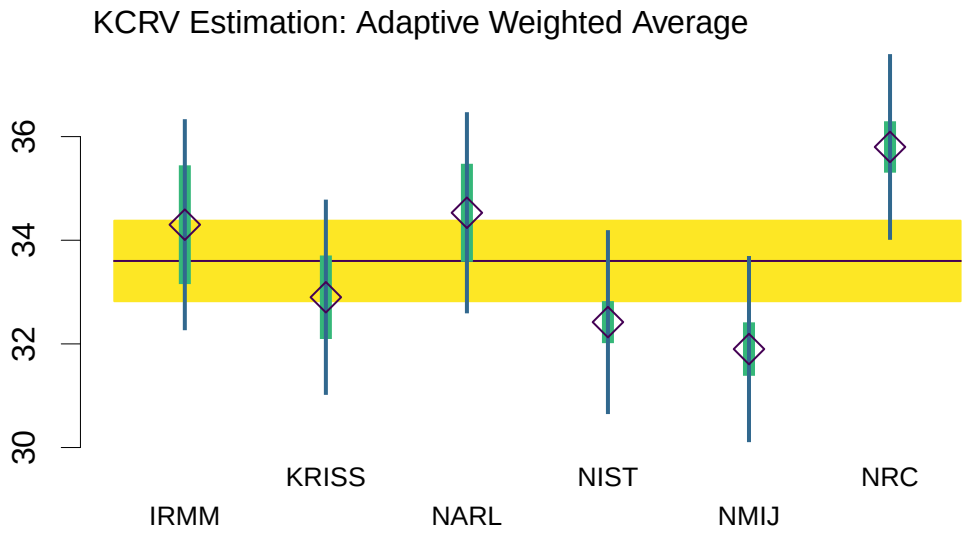
Decision Tree Hypothesis test results

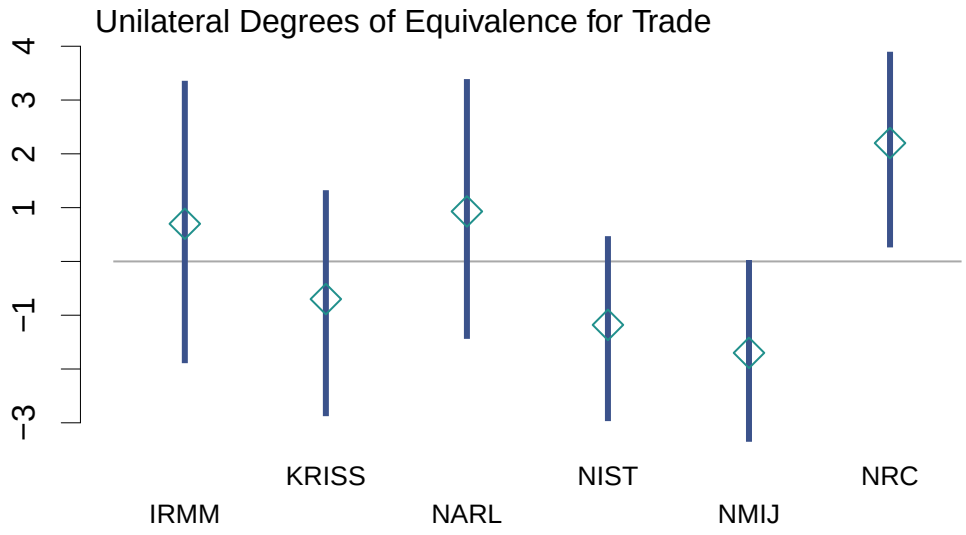
Cochran's test for Homogeneity:
p-value: $p < 0.001$
Q = 68.22 (Reference Distribution: Chi-Square with 5 Degrees of Freedom)
tau est. = 1.711
tau/median(x) = 0.05093
tau/median(u) = 3.14

Shapiro-Wilk test for Normality: $p = 0.5301$

Miao-Gel-Gastwirth test of Symmetry: $p = 0.9414$

Plots


KCRV Estimation: Adaptive Weighted Average
36
34
32
30
IRMM
KRISS
NARL
NIST
NMIJ
NRC


Unilateral Degrees of Equivalence for Trade
4
3
2
1
−1
−3
IRMM
KRISS
NARL
NIST
NMIJ
NRC

DoE Table

	Lab	DoE.x	DoE.U95	DoE.Lwr	DoE.Upr
IRMM	IRMM	0.6996	2.595	-1.8360	3.30200
KRISS	KRISS	-0.7004	2.079	-2.8210	1.26800
NARL	NARL	0.9296	2.356	-1.3840	3.33400
NIST	NIST	-1.1800	1.681	-2.9130	0.41380
NMIJ	NMIJ	-1.7000	1.655	-3.2970	-0.02936
NRC	NRC	2.2000	1.748	0.3162	3.84200

MCMC Sampler Diagnostics Table (if applicable)

If one of the Bayesian models is run (Hierarchical Gauss-Gauss, Hierarchical Laplace-Gauss, or Hierarchical Skew-Student-t), then diagnostics for the MCMC sampler will be given below. As a general recommendation, if any of the R-hat values are greater than 1.05, then the sampler may not have reached equilibrium, and the "Total Number of MCMC Steps" should be increased, and the run repeated. The "Number of MCMC Warm-Up Steps" should be about half of the "Total Number of MCMC Steps." The "Effective Sample Size" (n.eff) is approximately the size of the MCMC sample that the results are based on.