# 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: 2023-03-24

Type of DoE: Degrees of Equivalence for Prediction Selected Procedure: Adaptive Weighted Average

Consensus estimate: 33.6 Standard uncertainty: 0.745

Standard uncertainty (using parametric bootstrap): 0.7247

95% coverage interval: (32.14, 35.06)

95% coverage interval (using parametric bootstrap): (32.11, 35.09)

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)

 $tau\ est.\,=\,1.711$ 

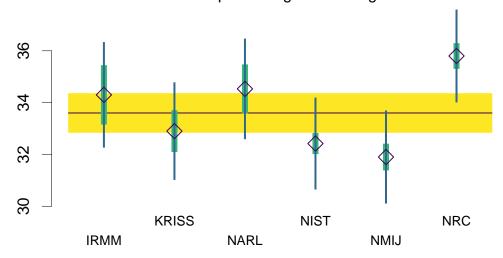
tau/median(x) = 0.05093tau/median(u) = 3.14

Shapiro-Wilk test for Normality: p = 0.5301

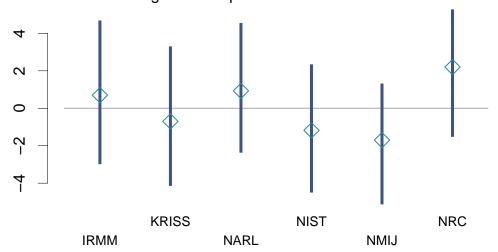
Miao-Gel-Gastwirth test of Symmetry: p = 0.9354

## Plots

KCRV Estimation: Adaptive Weighted Average



## Unilateral Degrees of Equivalence



DoE Table

	Lab	DoE.x	DoE.U95	DoE.Lwr	DoE.Upr
IRMM	IRMM	0.6996	3.828	-2.907	4.608
KRISS	KRISS	-0.7004	3.569	-4.065	3.226
NARL	NARL	0.9296	3.437	-2.292	4.471
NIST	NIST	-1.1800	3.296	-4.421	2.265
NMIJ	NMIJ	-1.7000	3.189	-5.052	1.241
NRC	NRC	2.2000	3.501	-1.445	5.200

MCMC Sampler Diagnostics Table (if applicable)