

# Supplementary Information: *Relative model selection is sensitive to multiple sequence alignment uncertainty*

Stephanie J. Spielman\* and Molly Miraglia

\*Corresponding author: spielman@rowan.edu (mailto:spielman@rowan.edu)

## Supplementary Figures

Figure S1

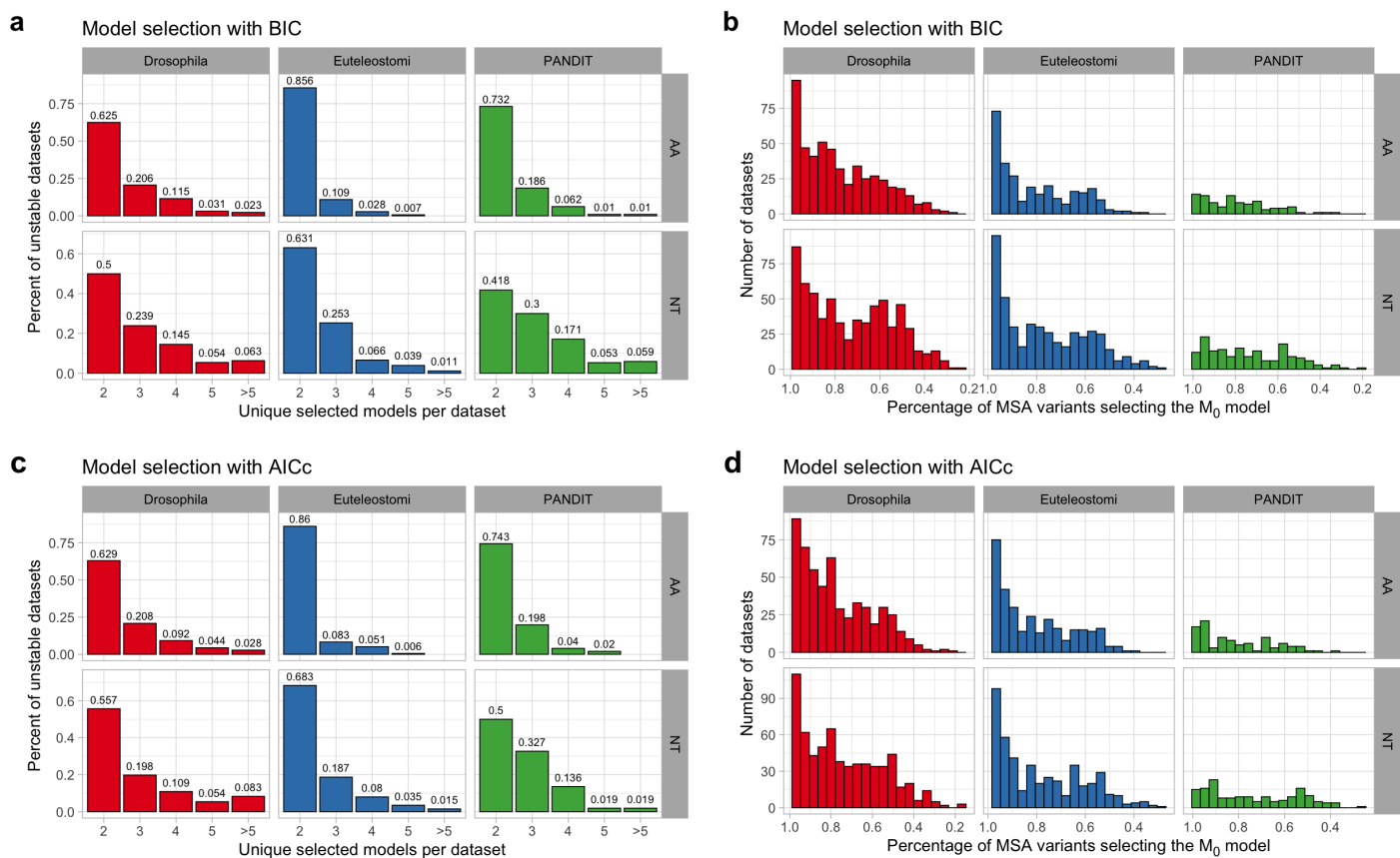
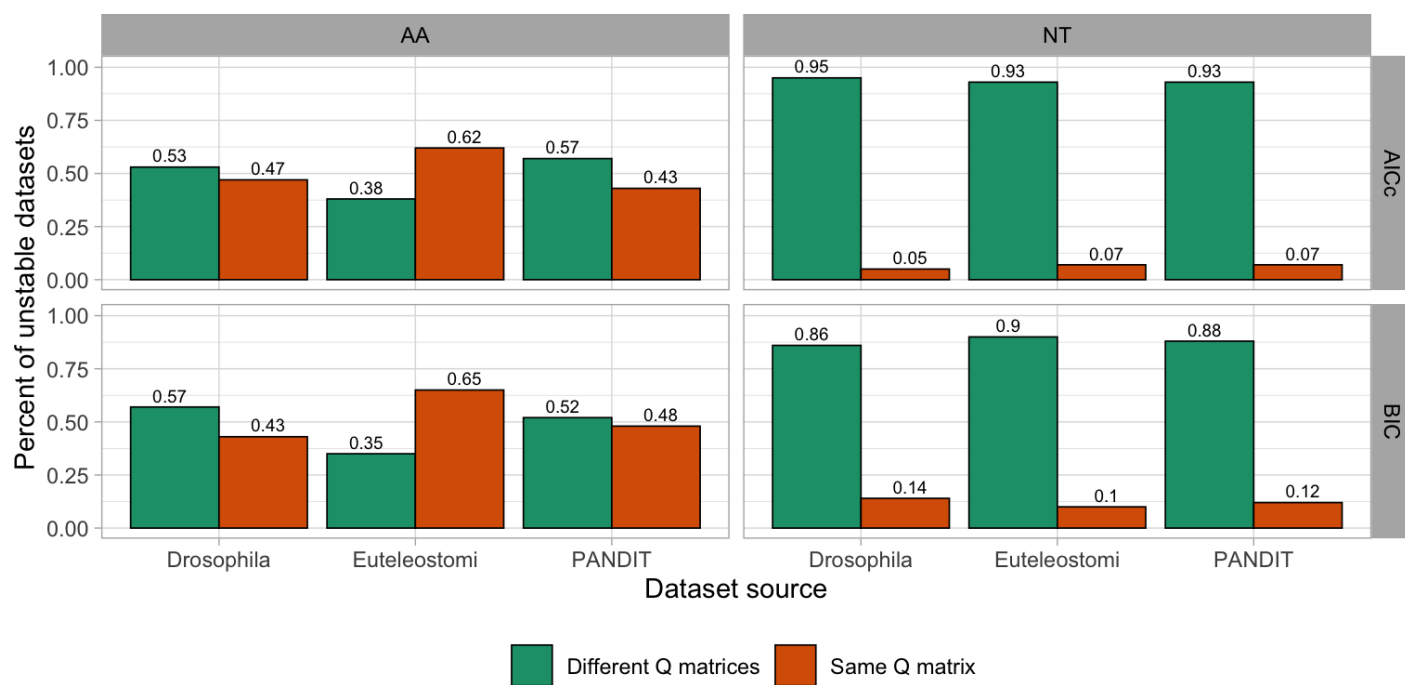
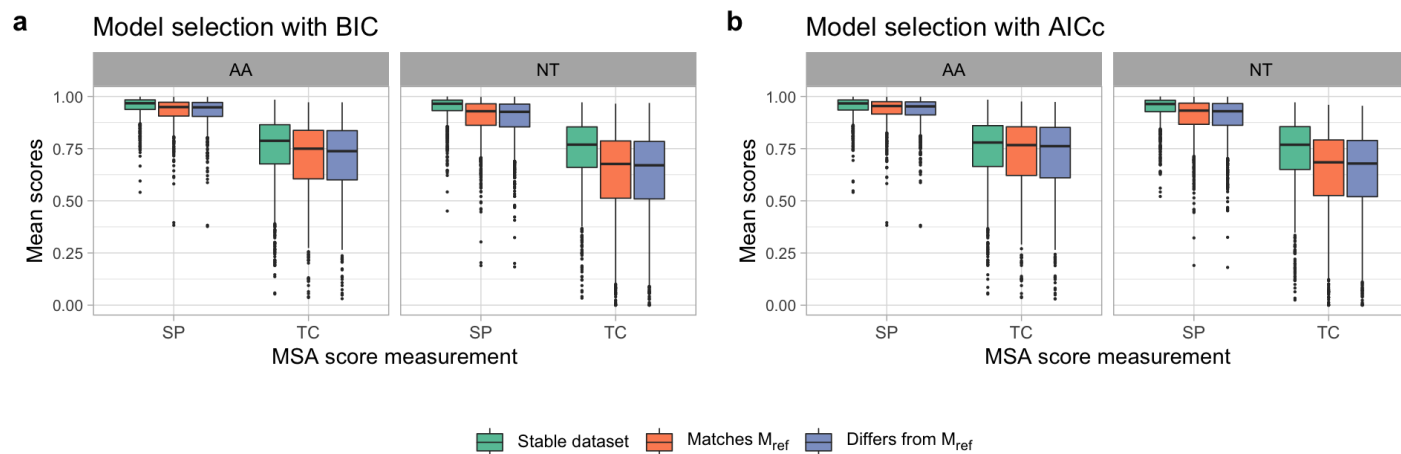


Figure S2



**Figure S3**



# Supplementary Tables

Table S1

SP and TC scores comparisons among groups				
Model selection with BIC				
Datatype	Score type	Comparison	Effect size (99% CI)	Adjusted P-value
AA	SP	differs-matches	-0.002 (-0.011, 0.008)	0.867
<b>AA</b>	<b>SP</b>	<b>stable-matches</b>	<b>0.023 (0.015, 0.032)</b>	<b>0.000</b>
<b>AA</b>	<b>SP</b>	<b>stable-differs</b>	<b>0.025 (0.017, 0.033)</b>	<b>0.000</b>
AA	TC	differs-matches	-0.006 (-0.034, 0.021)	0.769
<b>AA</b>	<b>TC</b>	<b>stable-matches</b>	<b>0.049 (0.026, 0.073)</b>	<b>0.000</b>
<b>AA</b>	<b>TC</b>	<b>stable-differs</b>	<b>0.056 (0.032, 0.079)</b>	<b>0.000</b>
NT	SP	differs-matches	-0.003 (-0.015, 0.009)	0.739
<b>NT</b>	<b>SP</b>	<b>stable-matches</b>	<b>0.05 (0.038, 0.062)</b>	<b>0.000</b>
<b>NT</b>	<b>SP</b>	<b>stable-differs</b>	<b>0.053 (0.041, 0.065)</b>	<b>0.000</b>
NT	TC	differs-matches	-0.007 (-0.033, 0.019)	0.699
<b>NT</b>	<b>TC</b>	<b>stable-matches</b>	<b>0.105 (0.079, 0.132)</b>	<b>0.000</b>
<b>NT</b>	<b>TC</b>	<b>stable-differs</b>	<b>0.112 (0.086, 0.139)</b>	<b>0.000</b>

Table S2

SP and TC scores comparisons among groups				
Model selection with AICc				
Datatype	Score type	Comparison	Effect size (99% CI)	Adjusted P-value
AA	SP	differs-matches	-0.002 (-0.012, 0.007)	0.762
<b>AA</b>	<b>SP</b>	<b>stable-matches</b>	<b>0.016 (0.008, 0.025)</b>	<b>0.000</b>
<b>AA</b>	<b>SP</b>	<b>stable-differs</b>	<b>0.019 (0.01, 0.027)</b>	<b>0.000</b>
AA	TC	differs-matches	-0.008 (-0.034, 0.018)	0.653
<b>AA</b>	<b>TC</b>	<b>stable-matches</b>	<b>0.025 (0.001, 0.048)</b>	<b>0.006</b>
<b>AA</b>	<b>TC</b>	<b>stable-differs</b>	<b>0.033 (0.009, 0.056)</b>	<b>0.000</b>
NT	SP	differs-matches	-0.002 (-0.014, 0.01)	0.831
<b>NT</b>	<b>SP</b>	<b>stable-matches</b>	<b>0.044 (0.032, 0.056)</b>	<b>0.000</b>
<b>NT</b>	<b>SP</b>	<b>stable-differs</b>	<b>0.046 (0.034, 0.058)</b>	<b>0.000</b>
NT	TC	differs-matches	-0.006 (-0.032, 0.02)	0.788
<b>NT</b>	<b>TC</b>	<b>stable-matches</b>	<b>0.095 (0.068, 0.121)</b>	<b>0.000</b>
<b>NT</b>	<b>TC</b>	<b>stable-differs</b>	<b>0.101 (0.074, 0.127)</b>	<b>0.000</b>