

Why Rank Correlation for Comparing Clinical Rankings with Intervals?

The Problem: Cannot Compare Directly

MRI Contrast Clinical Rankings

T1c 1
T1n 2
T2f 3
T2w 4

MRI Contrast Shapley Value Intervals

T1c [0.35, 0.48]
T1n [0.25, 0.38]
T2f [0.28, 0.40]
T2w [0.05, 0.15]



The Solution: Compare Rankings

MRI Contrast Clinical Rankings

T1c: 1
T1n: 2
T2f: 3
T2w: 4

MRI Contrast Shapley Interval Ranking *(ranked by interval mean)*

T1c: 1
T1n: 3
T2f: 2
T2w: 4

Ranking (1-4) \neq Shapley Values (unbounded)

Kendall's τ

*Correlation between
two sets of rankings*

