



KRUSKAL-WALLIS TEST

HYPOTHESIS TESTING

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TOPIC OUTLINE

Kruskal-Wallis Test



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Kruskal-Wallis test is a nonparametric statistical test used to determine if there are statistically significant differences between the medians of three or more independent samples.

Null Hypothesis

$$H_0: M_1 = M_2 = M_3 = \dots M_n$$

$$H_a: \text{at least 1} \neq (\text{p-value} < \alpha)$$

Assumptions

- Continuous or ordinal data
- Non-normal data
- Comparing general distribution differences

syntax

```
from scipy import stats

kru_stat, p_value = stats.kruskal(
    sample_1, sample_2,
    sample_3, ... sample_n)
```



LABORATORY

