MANN-WHITNEY U TEST

HYPOTHESIS TESTING

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TOPIC OUTLINE

Mann-Whitney U-Test

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Mann-Whitney U test is a nonparametric hypothesis test used to compare **two independent** samples.

Hypothesis

$H_o: M_1 = M_2$

$H_a: M_1 \neq M_2$ (p-value $< \alpha$)

Assumptions

- Continuous data

- Non-normal data

- Equal variances

syntax

```
from scipy import stats

man_stat, p_value = stats.manwhitneyu(

    sample_1 data,

    sample_2 data)
```

LABORATORY