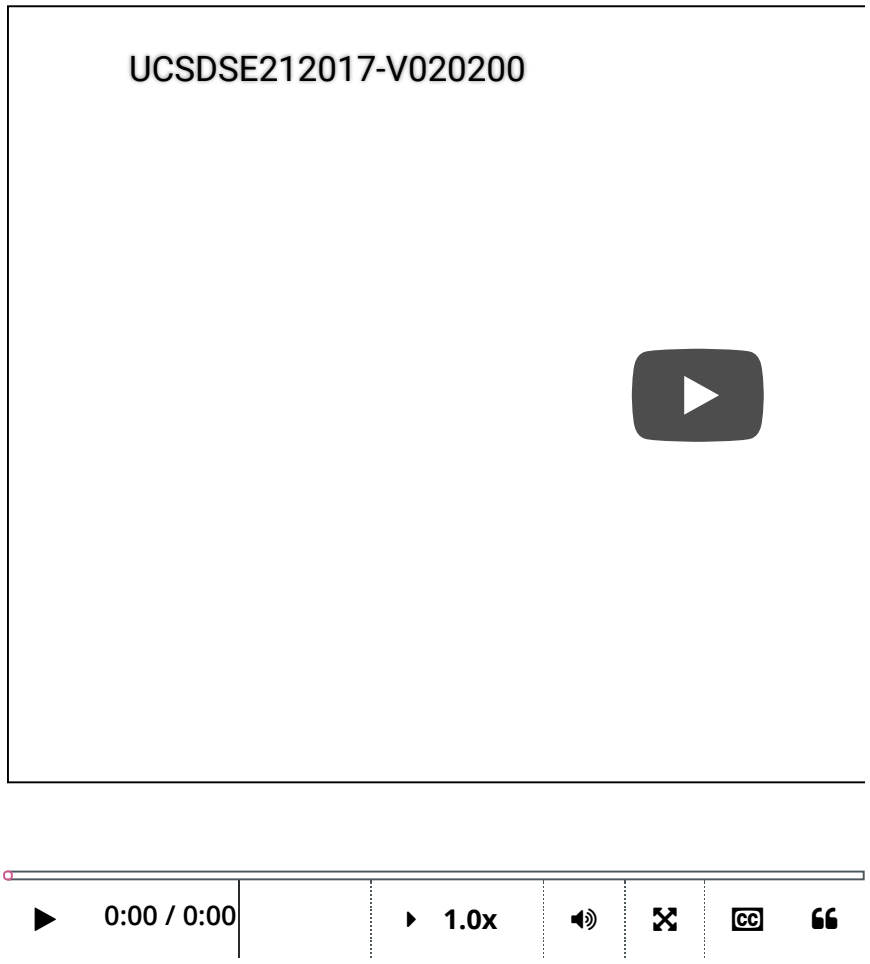
Hypothesis Testing Video



Start of transcript. Skip to the end.

- Hello, and welcome back.

In the previous videos, we talked about confidence interval,

and in this lecture, we're going to start talking about

hypothesis testing.

We'll introduce a hypothesis which are just assumptions

about parameters.

And we'll talk about simple and composite hypotheses.

13.1_Hypotheis_testing_-_Introduction

POLL

If we fail to reject the null hypothesis, does it mean that the null hypothesis is correct?

RESULTS

- **No, we just don't have enough evidence to reject it.** **84%**
- **Yes, it must be correct.** **16%**

Submit

Results gathered from 141 respondents.

FEEDBACK
No, we just don't have enough evidence to reject it.

1

0/1 point (graded)
The distribution of the test statistic T depends on

- [x] Null hypothesis H_0, ✔
- [ ] Alternative hypothesis H_A,
- [ ] Obeserved data t,
- [x] None of above.

✖

Submit You have used 3 of 3 attempts

Answers are displayed within the problem

2

1/1 point (graded)
The null hypothesis says that Z follows normal distribution $\mathcal{N}(0, \sigma^2)$. If the null hypothesis is correct, which of the following is the most unlikely event?

- $Z \in [-\sigma, \sigma]$

- ◉ $Z \notin [-2\sigma, 2\sigma]$ ✔
- ○ $Z \geq \sigma$

Explanation

By the 68-95-99.7 Rule:
$P(Z \in [-\sigma, \sigma]) \approx 68\%$
$P(Z \notin [-2\sigma, 2\sigma]) \approx 100 - 95 = 5\%$
$P(Z \geq \sigma) \approx (100 - 68)/2 = 16\%$
hence the second is smallest.

Submit You have used 2 of 2 attempts

Answers are displayed within the problem

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