

STA 422 Statistical Inference: M 12-2 SS2108  
2162 Methods and Theory W 12-1 SS2108

2014  
Sep 8

[www.utsat.toronto.edu/dfraser](http://www.utsat.toronto.edu/dfraser)

[www.utsat.toronto.edu/dfraser/documents/422-14](http://www.utsat.toronto.edu/dfraser/documents/422-14)

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TA: Wei Lin

← Course outline  
← Lecture notes

1) Recent developments

Topics

2) Comparison with earlier:  
(Suffcy; "5% reject", Bayes  
Bootstrap, conditioning)

- Statistical model

3) Reproducibility:

- Model & Data: Inference

Science 2014 Jan 17

- P-value, confidence

2014 Aug 22

- Bayes, Efron, "genuine"

CERN Higgs Boson

- CLT; expansions

5 sigma,  $3 \times 10^{-6}$

- Laplace integration

Paradigm shift: 1962 Kuhn

- Saddlepoint approx: 1954/1979

Why does statistics have two  
theories? ~documents/266

-  $p^*$  approx B-N

Reproducibility: Bayes vs. f

- Bootstrap

3rd order

- 3rd order

Evaluation: To be confirmed on Wed Sep 10

3 assignments @ 15

1 test @ 15

Participation 20

Attendance 20

Mo Tu We Th Fr

September  
8 9 10 11 12  
15 16 17 18 19  
22 23 24 25 26  
29 30

October  
1 2 3  
6 7 8 9 10  
14 15 16 17  
20 21 22 23 24  
27 28 29 30 31

November  
3 4 5 6 7  
10 11 12 13 14  
19 20 21  
24 25 26 27 28

December

1 2 3