

STOCKHOLM UNIVERSITY Department of Statistics Dan Hedlin

Autumn semester 2012

Statistical Methods Part 1

Excercise 2

Worth 5 marks out of 100 marks.

At this webpage there are data on some singers' self-reported heights: http://lib.stat.cmu.edu/DASL/Stories/SingerHeights.html

You can also find this dataset on the course website: "singers".

The voice types are coded in "singers" in the following way:

```
proc format;
value vt
1='soprano'
2='alto'
3='tenor'
4='bass'
;
```

1. A sample of volunteers of the singers were measured with a measuring rod and their heights are recorded in the dataset "samplesingers" on the course website. The column "height" contains their self-reported heights, and "height2" is the measured height. Estimate the mean and variance of the measurement error within each of the groups sopranos, altos, tenors, basses. (3 pages maximum).

Deadline Monday 22 November at 12 noon (i.e. beginning of lecture).