# Tables for Multilevel Models in Stata

Andy Grogan-Kaylor

2024-03-28

# 1 Introduction 🌲

This is a shorter working example to make tables in Stata.

# 2 Data Source 🌲

The data used in this example are derived from the R package *Functions and Datasets for "Forest Analytics with R"*.

According to the documentation, the source of these data are: "von Guttenberg's Norway spruce (Picea abies [L.] Karst) tree measurement data."



Figure 1: Old Tjikko, a 9,550 Year Old Norway Spruce in Sweden

The documentation goes on to further note that:

> "The data are measures from 107 trees. The trees were selected as being of average size from healthy and well stocked stands in the Alps."

# 3 Setup🌲

```
clear all // clear workspace

use "gutten.dta", clear // use tree data as example
```

# 4 Variables 🌲

site Growth *quality* class of the tree's habitat. 5 levels.

location Distinguishes tree *location.* 7 levels.

tree An identifier for the tree within location.

age_base The tree age taken at ground level.

`height` Tree height, m.

`dbh_cm` Tree diameter, cm.

`volume` Tree volume.

`age_bh` Tree age taken at 1.3 m.

`tree_ID` A factor uniquely identifying the tree.

# 5 Estimate Multilevel Models 🌲

> 💡 Use `quietly` To Suppress Output
>
> For the sake of parsimony, I use `quietly:` to suppress the output of the `mixed` commands.

```
quietly: mixed height age_base i.site || tree_ID: // shorter mixed model

est store M1 // store the estimates

quietly: mixed height age_base i.site i.location || tree_ID: // longer mixed
model

est store M2 // store the estimates
```

# 6 Table With etable🚀

```
etable, estimates(M1 M2) /// use these estimate(s)
novarlabel /// variable names only
cstat(_r_b) /// beta's only
showstars showstarsnote /// show stars and note
column(estimate) // column is modelname
```

```
                           M1          M2
---------------------------------------------
age_base                0.214 **    0.214 **
site
  2                     -3.316 **   -2.994 **
  3                     -8.095 **   -7.765 **
  4                    -11.510 **  -10.844 **
  5                    -15.866 **  -15.179 **
location
  2                                 -0.322
  3                                  0.475
  4                                  0.060
  5                                 -0.450
  6                                 -0.255
  7                                 -1.454
_cons                   8.233 **    8.181 **
var(_cons)              2.171       1.981
var(e)                  8.393       8.397
Number of observations  1200        1200
---------------------------------------------
** p<.01, * p<.05
```