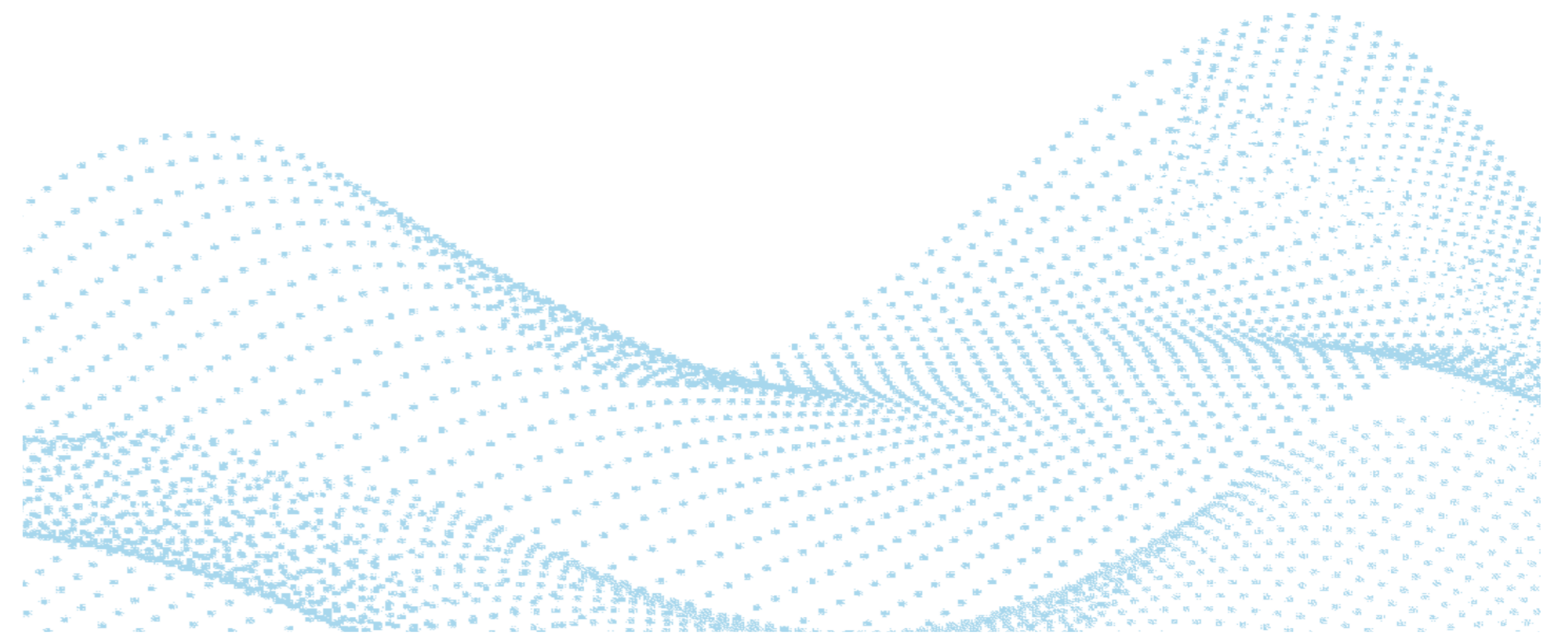


Statistical Consulting @LiRI

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Research Question

How many COVID-19 symptoms could Swiss students list spontaneously in June 2020 and 2021?

Model

```
model <- glmer(number ~ year + faculty + language + year:faculty + year:language + (1|university) + (1|postcode), data=symptoms, family=poisson)
```

Model Output

Random effects:

Groups	Name	Variance	Std.Dev.
postcode	(Intercept)	0.001868	0.04322
university	(Intercept)	0.000000	0.00000

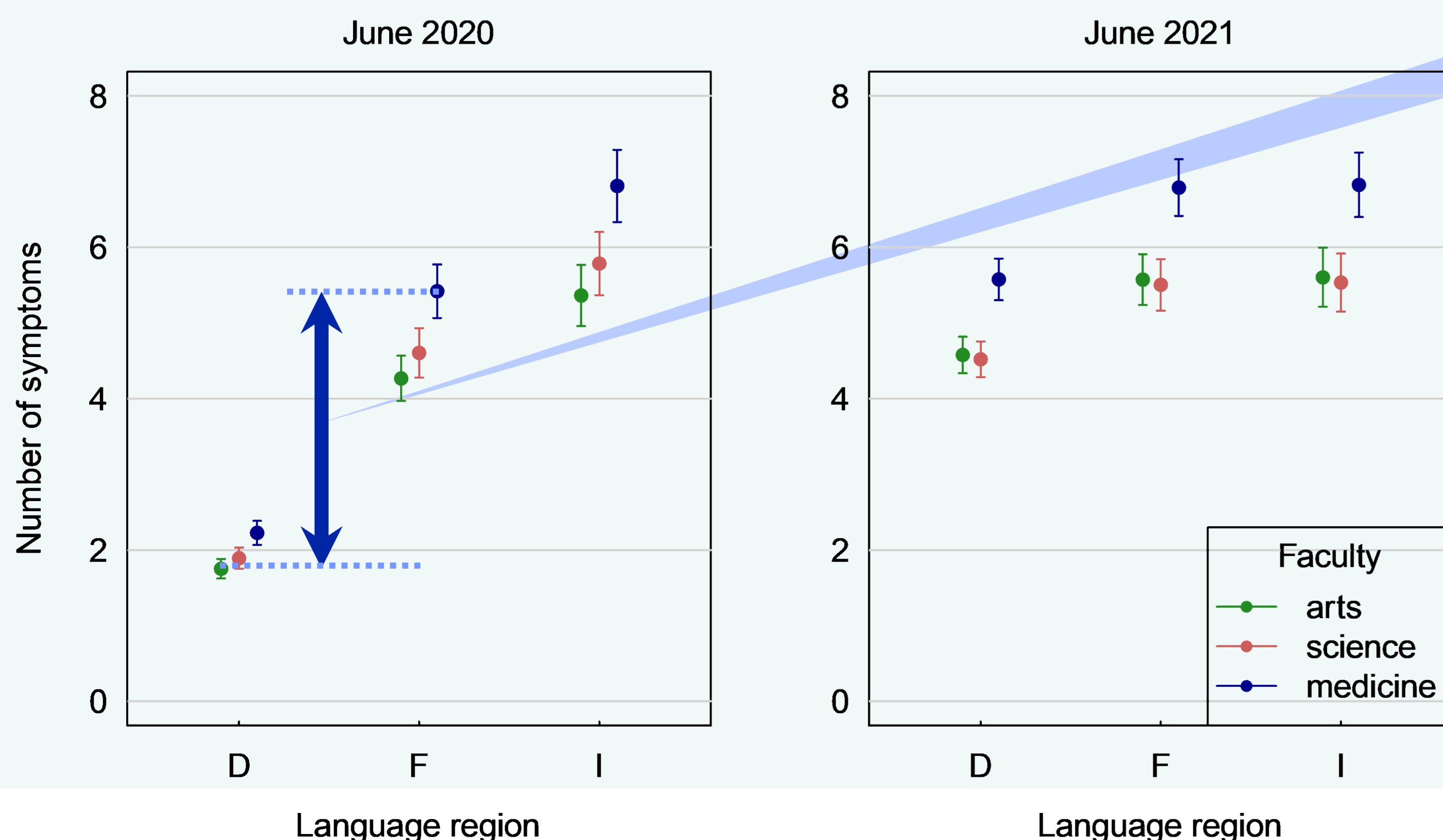
Number of obs: 2200, groups: postcode, 220; university, 11

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	0.53013	0.03913	13.548	< 2e-16 ***
year2021	1.00387	0.04798	20.922	< 2e-16 ***
facultyscience	0.05600	0.04086	1.371	0.1705
facultymedicine	0.26622	0.03951	6.738	1.6e-11 ***
languageF	0.95334	0.04170	22.864	< 2e-16 ***
languageI	1.17848	0.04408	26.733	< 2e-16 ***
year2021:facultyscience	-0.10224	0.05292	-1.932	0.0534 .
year2021:facultymedicine	-0.11173	0.05051	-2.212	0.0270 *
year2021:languageF	-0.80092	0.05294	-15.128	< 2e-16 ***
year2021:languageI	-0.92656	0.05791	-16.000	< 2e-16 ***

AIC	BIC	logLik	deviance	df.resid
9214.5	9282.9	-4595.3	9190.5	2188

Figure



Question 1

What distribution of the response variable does the model assume and what type of data is it typically used for?

Question 2

What is the name of the blue shaded terms and what do they measure?

Question 3

Why are the yellow shaded terms written in a different way?

Question 4

What link function does the model use and why is it needed?

Question 5

Were arts students from the Italian speaking part able to list more symptoms than from the German speaking part in 2020?

Question 6

What exactly do the green shaded numbers represent?

Question 7

What can we learn from the two orange shaded numbers?

Question 8

How would you calculate the size of the blue arrow?

So, do I need statistical support?

I am lost / only managed to answer
0-2 questions

Contact us:
langstats@linguistik.uzh.ch

I have some idea /
I answered 3-6 questions

Well done, maybe contact us to discuss or double
check your analysis

This is pretty easy /
I answered 7-8 questions

Stats wizard, you don't need our help