

# Some Visualization

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## Abstract

This is Marco practicing some LaTeX Visuals.

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\*Many thanks especially to Marco, his company and the delicious beer he provides

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<sup>‡</sup>Many thanks to all the beers that have allowed me to go on

<sup>§</sup>Many thanks to Stack Overflow

# 1 Matlab Plots

Plots in Figure 1 generated with Matlab. I am not sure if color palette is color blind friendly though. I really like the standard Veridian color palette though, even though it's everywhere.

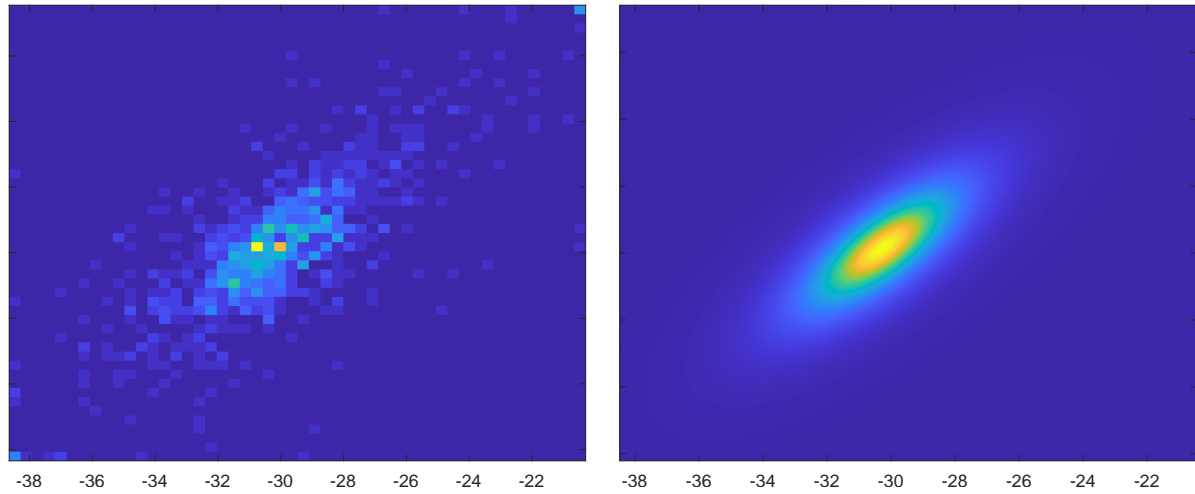


Figure 1: Multivariate Student's t Distribution **Left:** Simulation Heatmap. **Right:** Batch Approximation Algorithm Estimated Density.

# 2 R Plots and Table

## 2.1 Plots

Plots in Figure 2 come from R. One of them has a similar color palette as Matlab. The other one I am mostly sure is fine for color blind people.

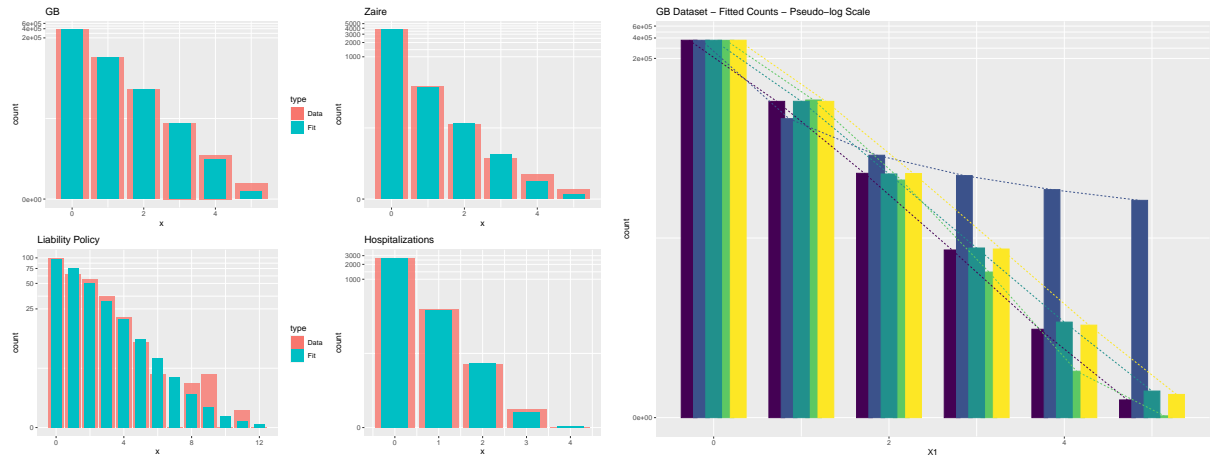


Figure 2: Insurance Claim Data from different datasets **Left:** Data vs. Poisson fit for different datasets. **Right:** Different fits for a single dataset

## 2.2 Table

Well, that was really hard.

Fit of automobile claim data in Great Britain, 1968						
		Fitted values				
No. of claims	<i>Observed</i>	<i>ND</i>	<i>NB</i>	<i>PIG</i>	<i>NBIG</i>	<i>P</i>
0	370412	370412.91	370438.95	370435.18	369743.74	369246.89
1	46545	46538.25	46451.26	46476.38	25781.37	48643.57
2	3935	3942.39	4030.51	3995.76	7450.47	3204.08
3	317	318.57	297.83	307.67	3726.71	140.7
4	28	25.64	20.09	23.12	2314.76	4.63
5	3	2.06	1.28	1.75	1608.55	0.12
Parameter 1		$\hat{\alpha} = -1.3491$	$\hat{r} = 2.6047$	$\hat{\mu} = 0.1317$	$\hat{\sigma} = 1.516$	$\hat{\lambda} = 0.1317$
Parameter 2		$\hat{\theta} = 0.0805$	$\hat{p} = 0.9519$	$\hat{\beta} = 0.0512$	$\hat{\gamma} = 0.1102$	
$\chi^2$		0.67	9.13	3.24	25363.77	667.52
$L_{max}$		171133.3	171136.97	171134.47	195863.3	171373.18

Table 1: Table using dcolumn

## 3 Heattable

	<i>CRO</i>	<i>USA</i>	<i>GER</i>	<i>HUN</i>	<i>POL</i>
2020	0	0	0	2	0
2019	0	2	0	2	0
2018	7	4	3	0	4
2017	3	0	7	4	0
2016	3	7	7	2	4
2015	2	2	7	2	6

Table 2: Average Beer Consumption per day

## 4 Some notes on grids on plots

Adding grids can be quite helpful when graphs are large and simple ticks along the axis would slow down comprehension. Besides, when barplots are used, grids can be helpful when trying to distinguish their heights when comparing them over large horizontal distances. I do however think that the absence of grids can be quite elegant in some cases, such as when the focus of a plot lies more in displaying a particular feature of a dependency between variables than their magnitudes.