

Experiments

Exp 1. How good is the last iteration of the MCEM

```
time = proc.time()
n_sim = 1000
n_trees = 10
MP = matrix(nrow=n_sim,ncol=3)
RP = matrix(nrow=n_sim,ncol=3)
p = proc.time()
for(i in 1:n_sim){
  est = sim.est(n_trees=n_trees,pars=c(0.8,0.1,40),seed=i)
  RP[i,] = est$real
  MP[i,] = est$est
}
print(proc.time()-p)
```

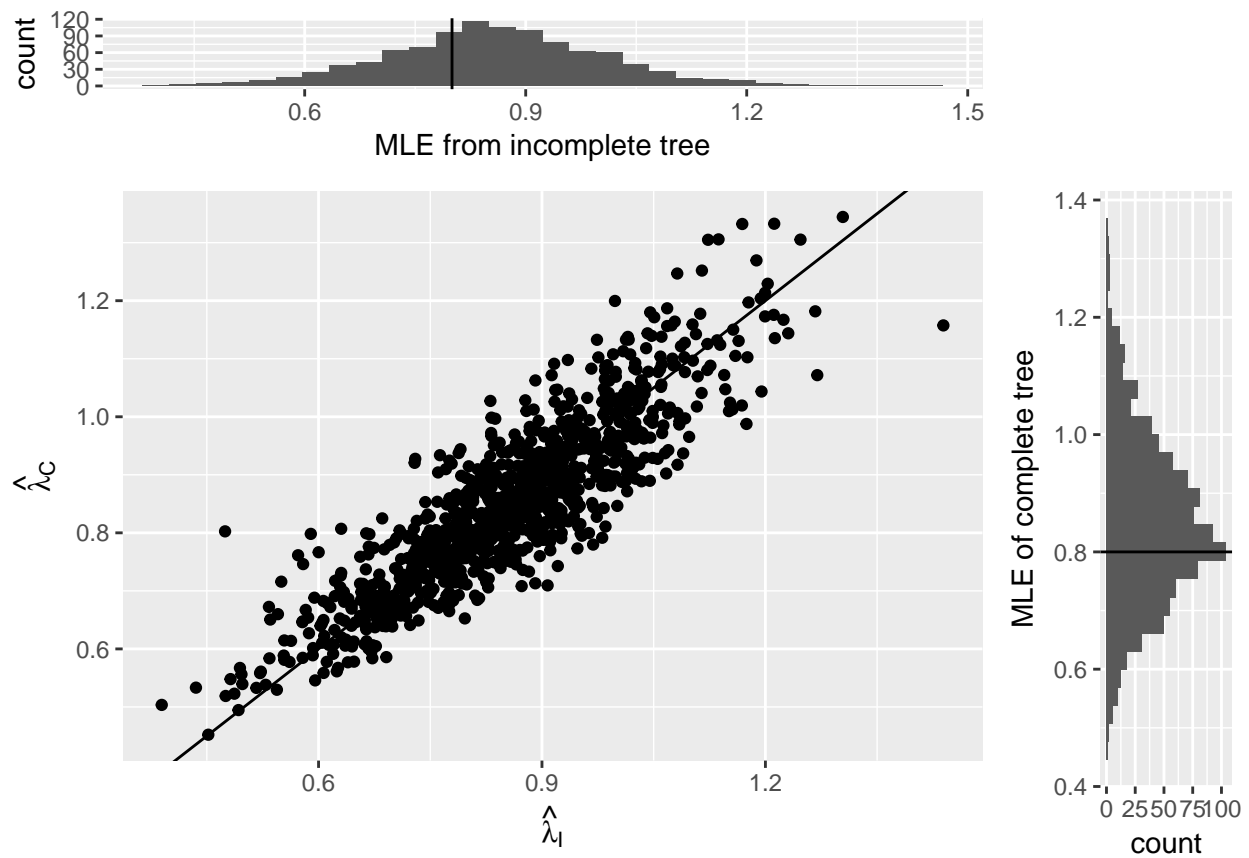
```
##      user      system elapsed
## 1108.172      0.080 1108.613
```

```
get.time(time)
```

```
## elapsed
## 1108.621
```

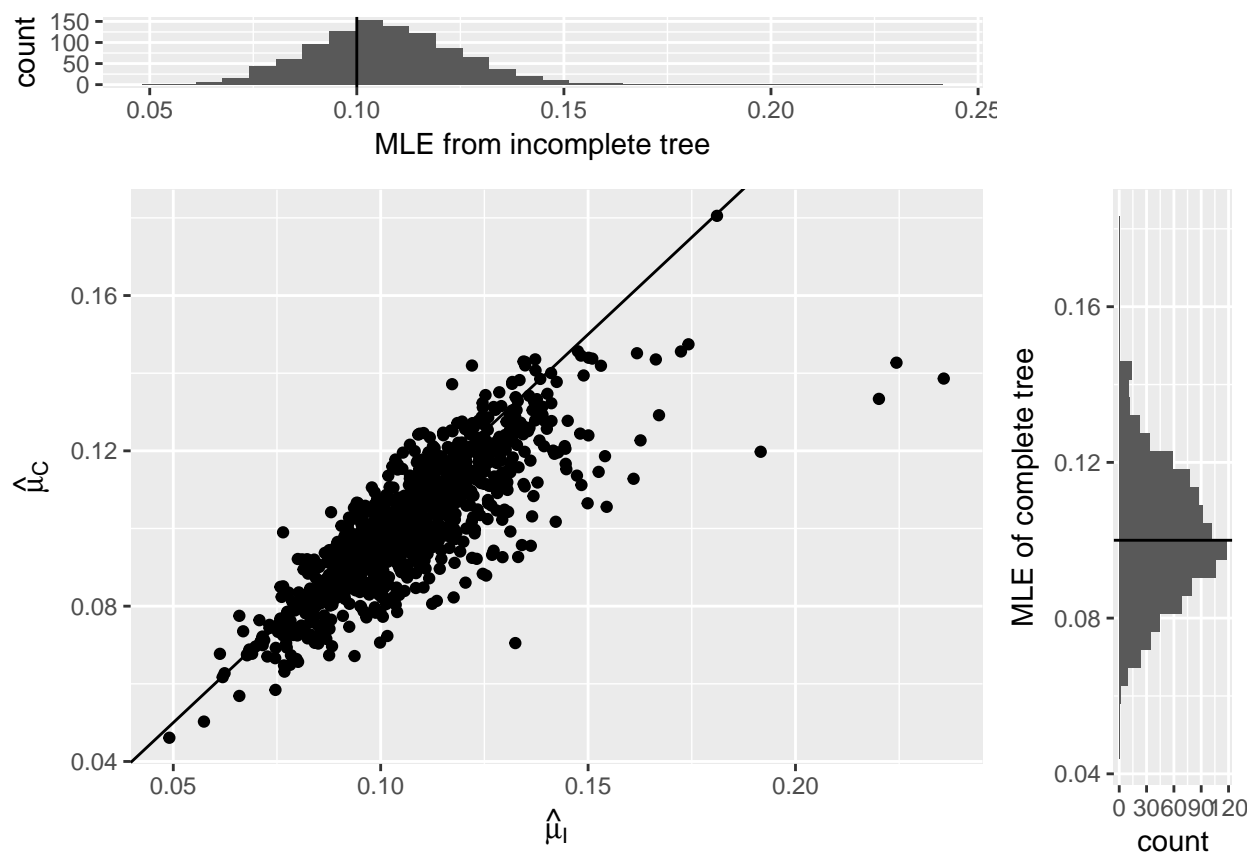
```
dmea::par_est_vis(P=MP,par=1,PR=RP)
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



```
dmea::par_est_vis(P=MP,par=2,PR=RP)
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

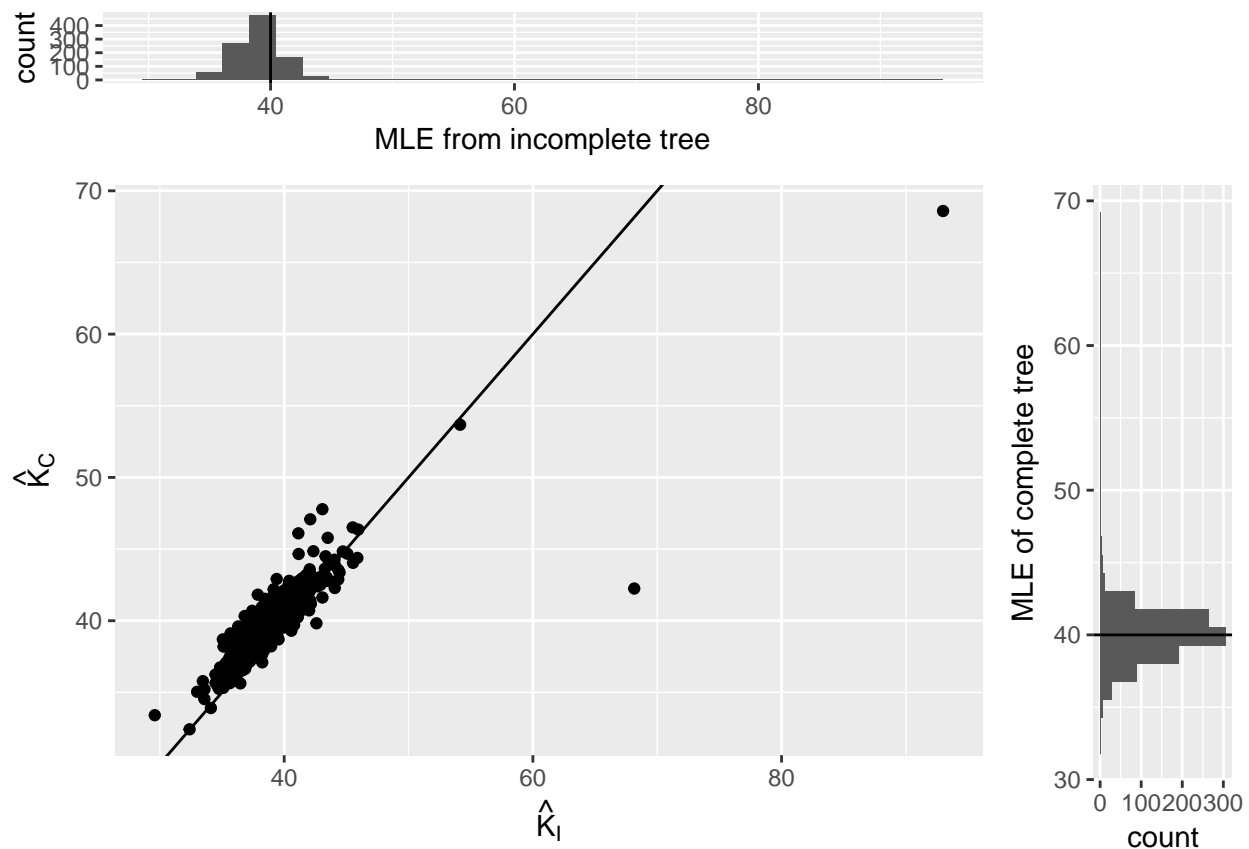


```
dmea::par_est_vis(P=MP,par=3,PR=RP)
```

```
## [1] "0.003 proportion of data was excluded for vizualization purposes"
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```



`summary(MP)`

##	V1	V2	V3
##	Min. :0.3894	Min. :0.04906	Min. :24.74
##	1st Qu.:0.7670	1st Qu.:0.09504	1st Qu.:37.76
##	Median :0.8542	Median :0.10580	Median :38.93
##	Mean :0.8558	Mean :0.10722	Mean :39.04
##	3rd Qu.:0.9468	3rd Qu.:0.11806	3rd Qu.:40.13
##	Max. :1.4390	Max. :0.23574	Max. :92.99

`summary(RP)`

##	V1	V2	V3
##	Min. :0.4521	Min. :0.04611	Min. :3.200e+01
##	1st Qu.:0.7557	1st Qu.:0.08961	1st Qu.:3.900e+01
##	Median :0.8363	Median :0.10023	Median :4.000e+01
##	Mean :0.8497	Mean :0.10096	Mean :2.314e+11
##	3rd Qu.:0.9381	3rd Qu.:0.11241	3rd Qu.:4.100e+01
##	Max. :1.3443	Max. :0.18053	Max. :2.314e+14