Week 14

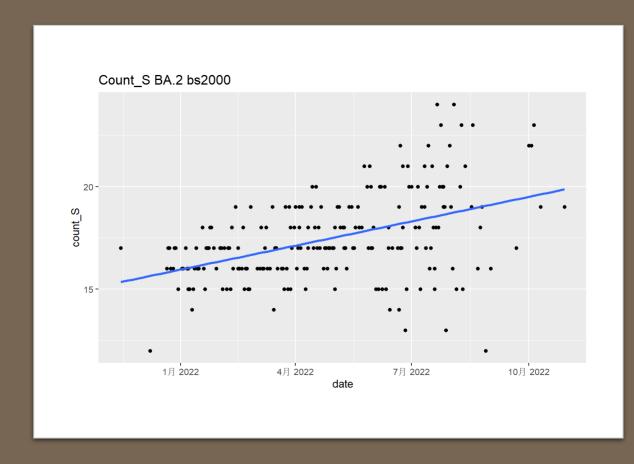
#### Formula for dnds

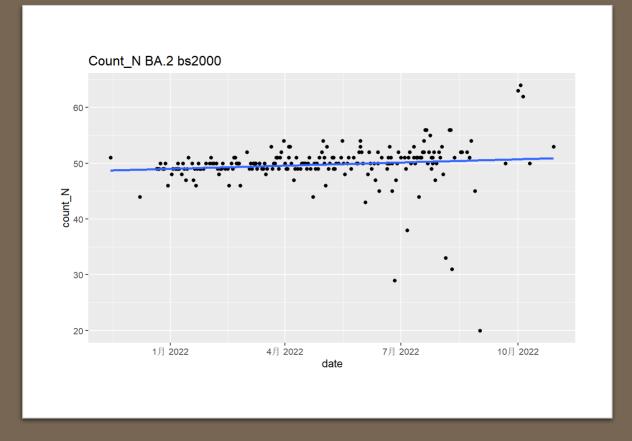
• Kn / Ks

• K calculated by linear regression.

#### 1. Bootstrap on lineages, for 2000 – 5000 times

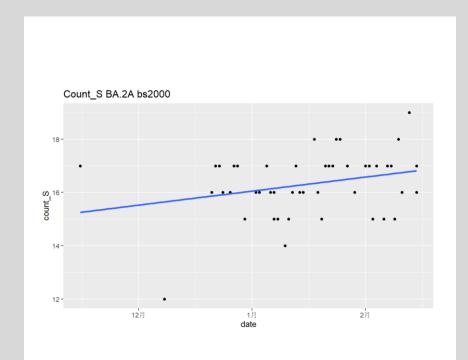
BA.2( with separating into BA.2A and BA.2B, if date < Feb.15)

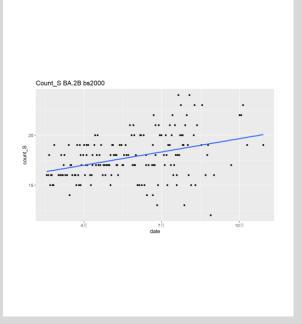


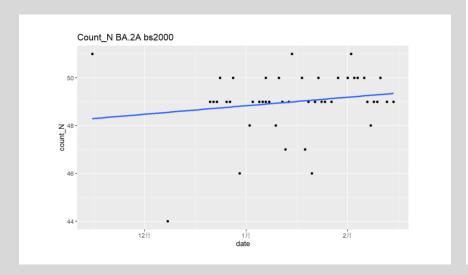


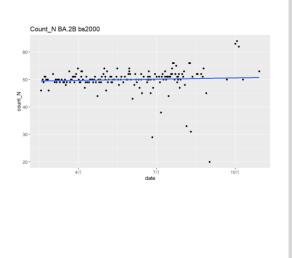
## 1. Bootstrap onlineages, for 2000– 5000 times

- BA.2A and BA.2B,
- if date < Feb.15?





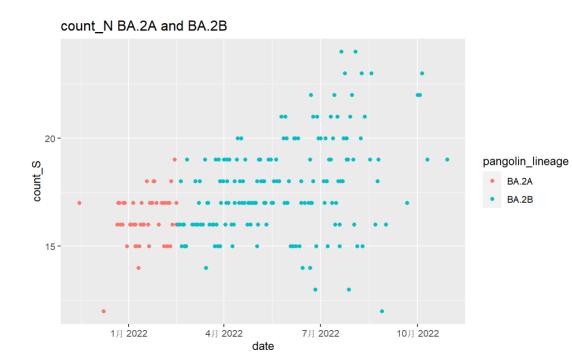




## 1. Bootstrap on lineages, for 2000 – 5000 times

• dnds\_new ba.2

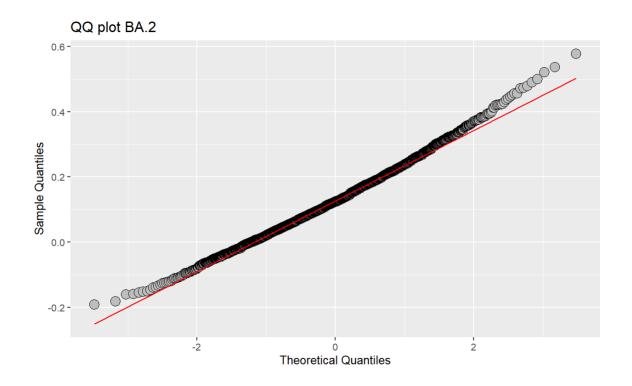
•

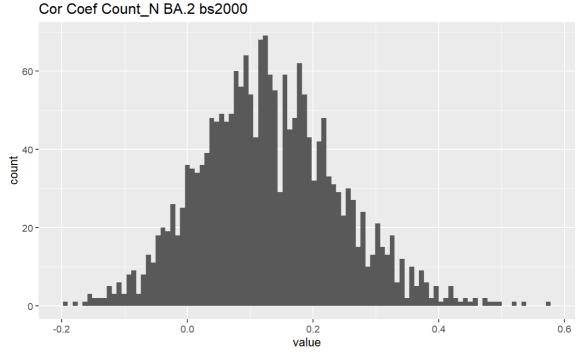


| BA.2 | BA.2A | BA.2B |
|------|-------|-------|
| 0.48 | 0.68  | 0.34  |

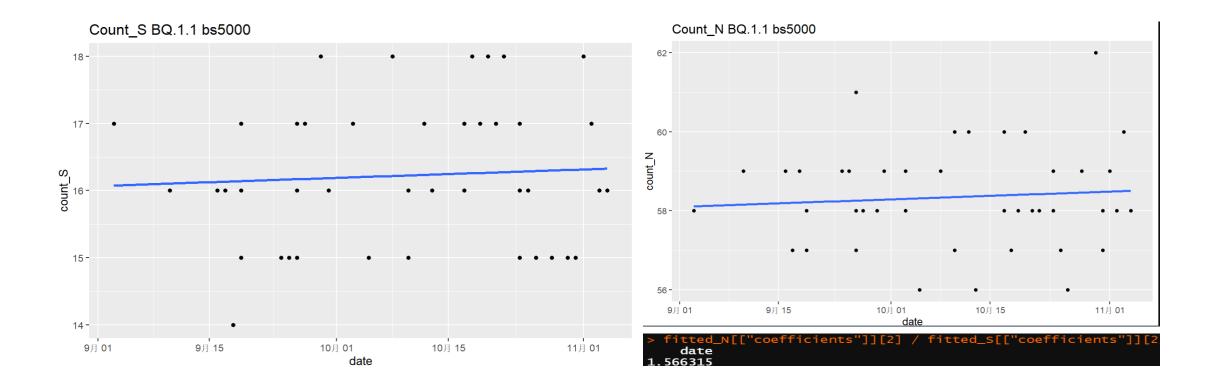
# 1. Bootstrap on lineages, for 2000– 5000 times

Cor coef & QQ-plot





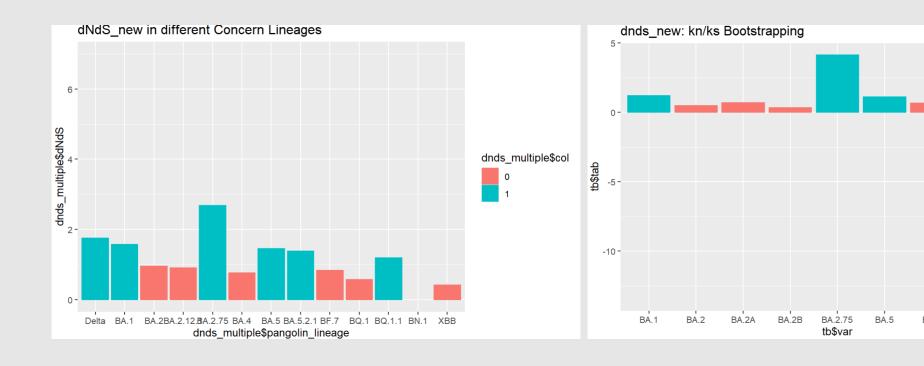
#### 2. BQ.1.1



#### 3. Comparing dnds(with or without BS)

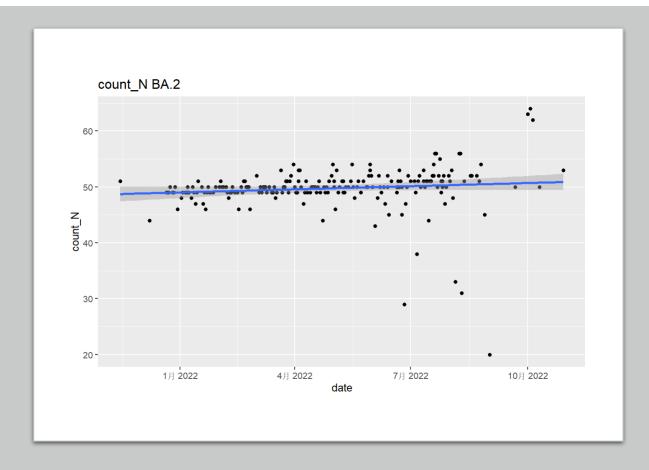
tb\$col

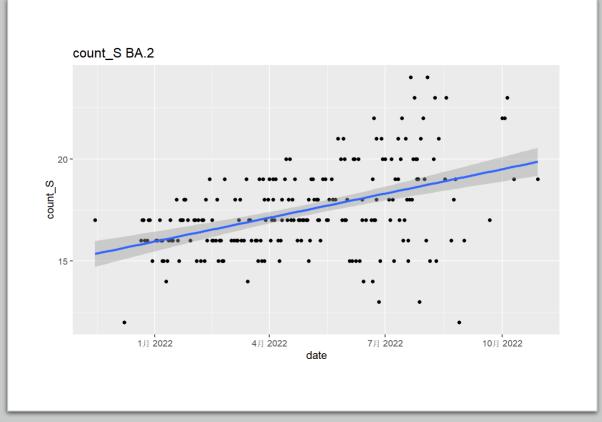
BQ.1.1



## 4. Technical Problems

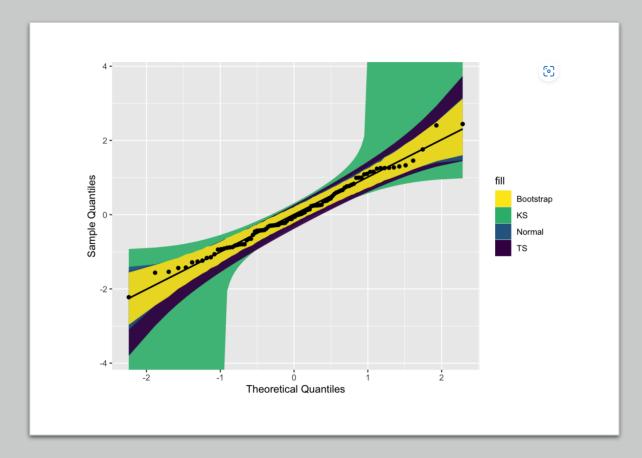
- 1. Im() and geom(Im), results are different
- 2. As result ba.2 by Im() = 0.95, which is obviously wrong

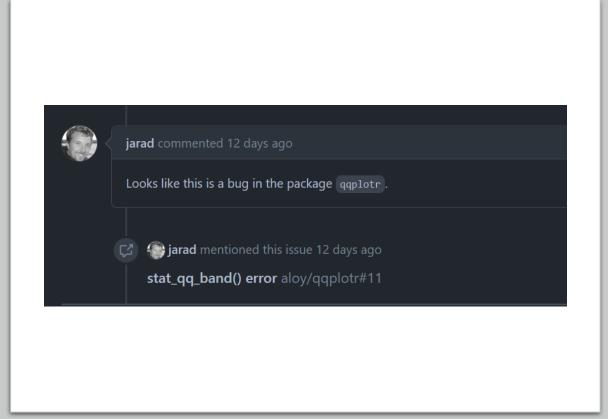




### 4. Technical Problems

• 2. I wished to use library::qqplotr() to draw bootstrapping scale in qqplot, while it has some bugs recently.





#### Writing Project Report