# Nature Communication Revision

Population structure and relatedness
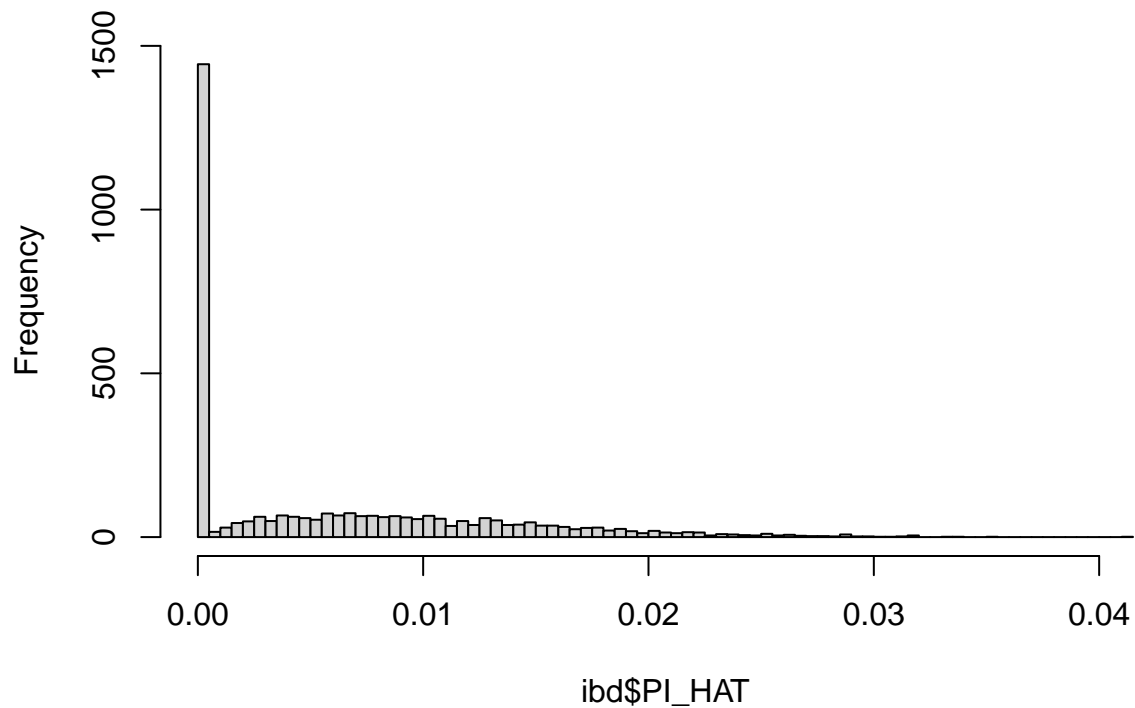
Ines Assum

July 12, 2021

# 1 Assess population structure and relatedness in the AFHRI-B cohort
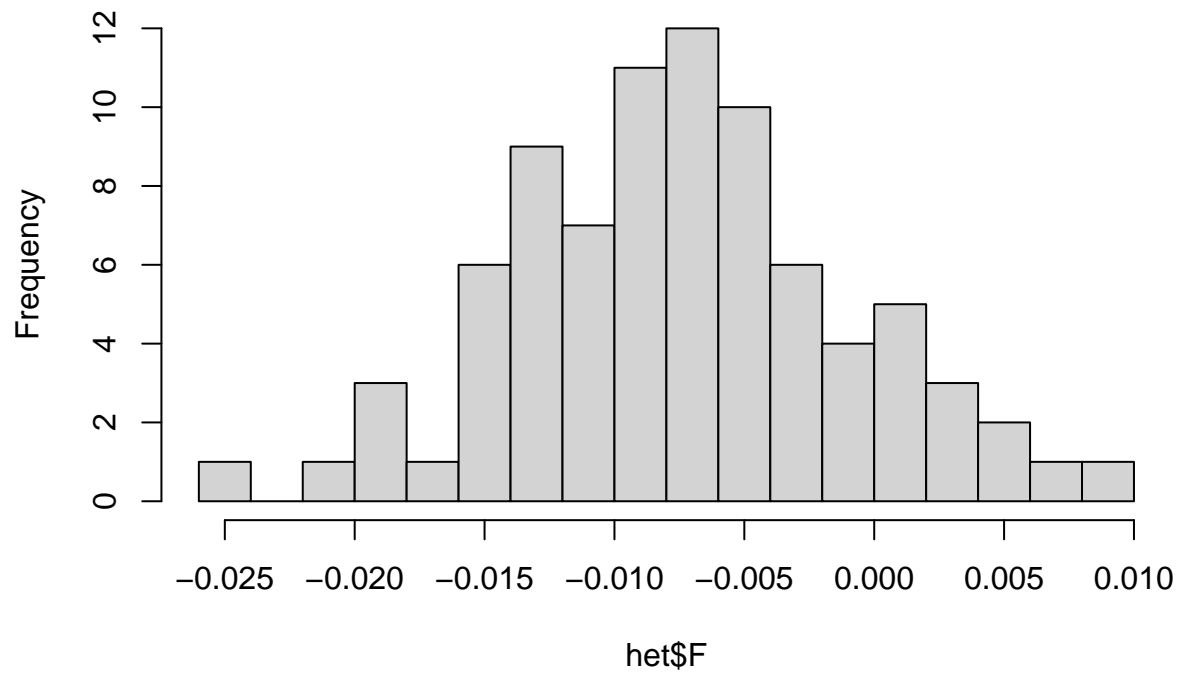
## 1.1 Relatedness

**IBD for the AFHRI–B cohort by PI_HAT estimate**


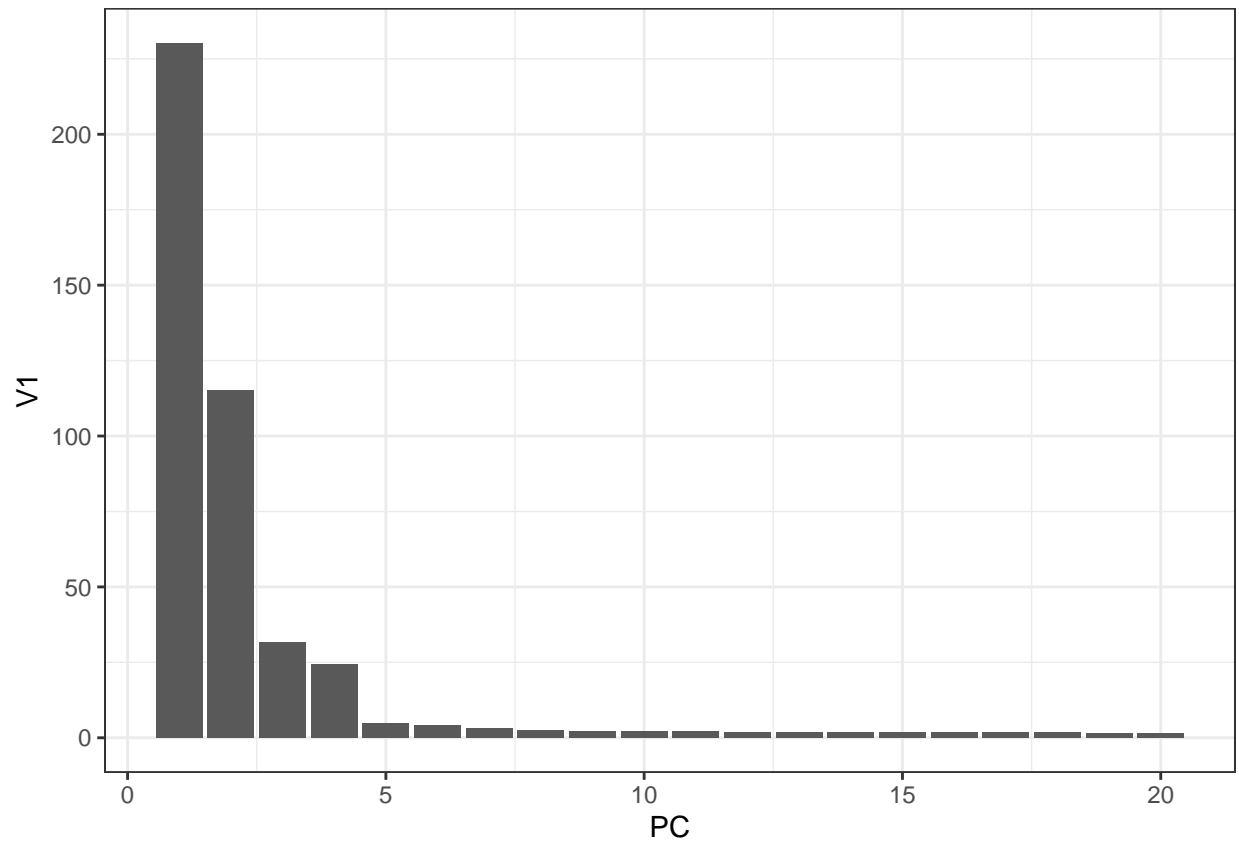
```
## [1] "Max. PI_HAT: 0.0413"
```

## Heterozygosity for the AFHRI–B cohort given by the F–value
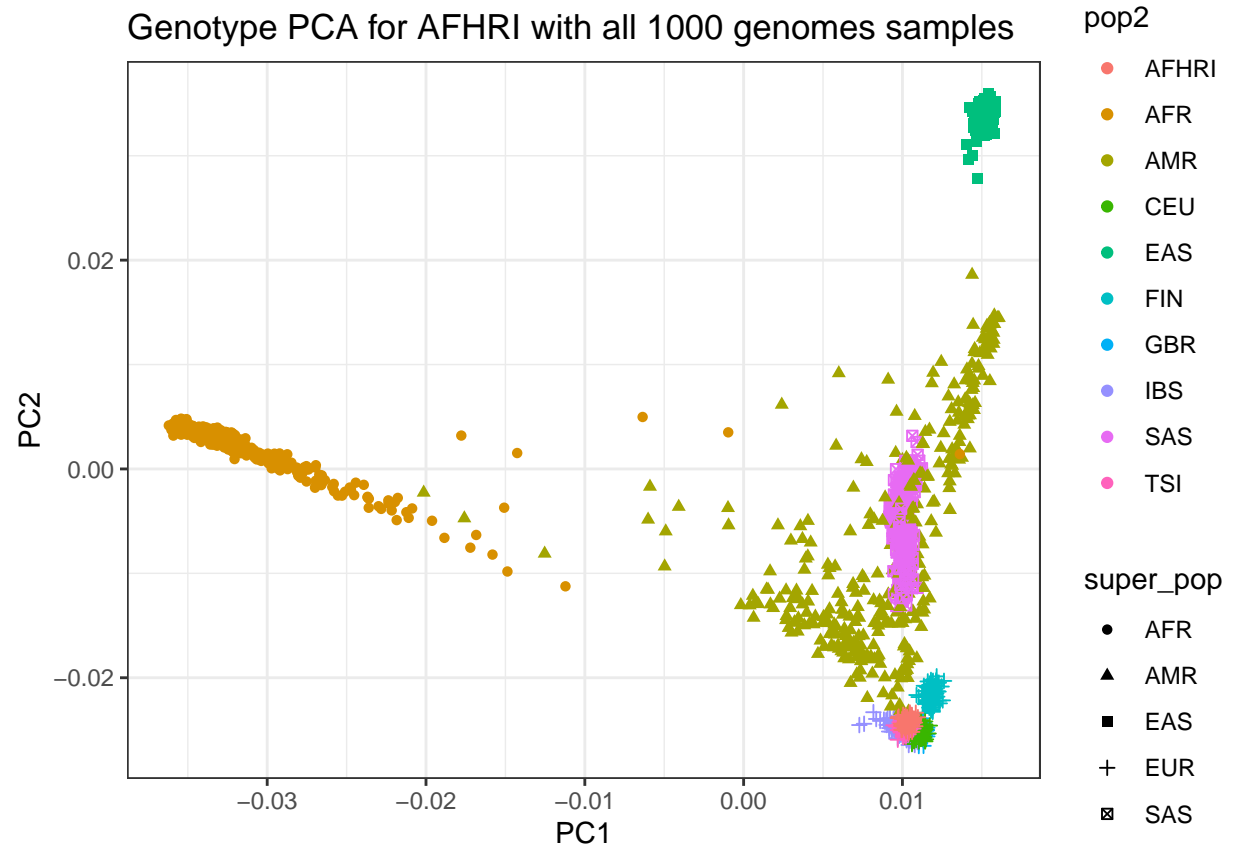


```
## [1] "With min/max F-values between  -0.02434 and 0.009508"
```
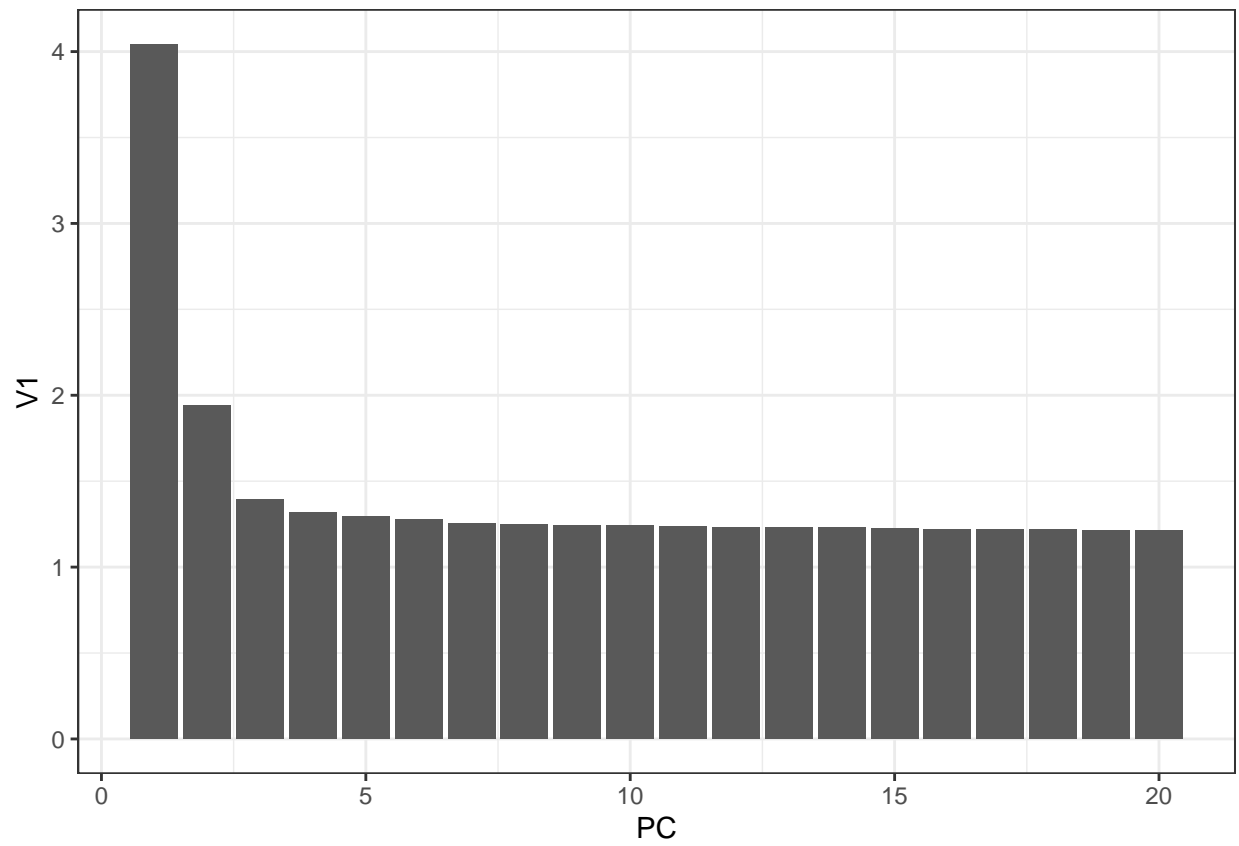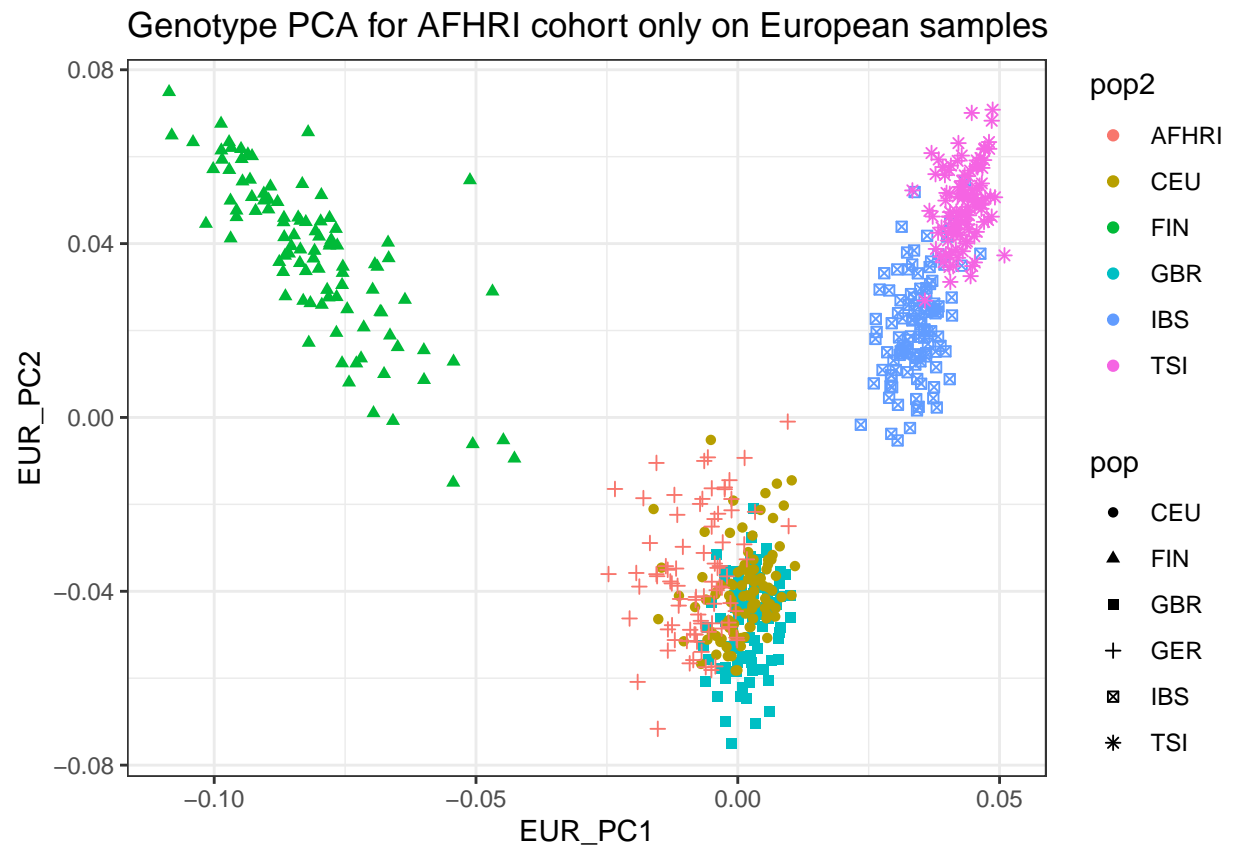
## 1.2   Population structure by PCA

### 1.2.1  All ancestries

## Genotype PCA for AFHRI with all 1000 genomes samples

### 1.2.2   Restriction to European populations

## Genotype PCA for AFHRI cohort only on European samples

### 1.2.3    Response letter figure

**Genotype PCA for the AFHRI cohort
(all 1000 genomes samples)**



Legend:
AFHRI   AMR   EAS   GBR   SAS    ● AFR   ▲ AMR   ■ EAS   + EL
AFR     CEU   FIN   IBS   TSI

**Genotype PCA for AFHRI cohort
(only on European samples)**



Legend:
● CEU   ■ GBR   ⊠ IBS    AFHRI   FIN   IBS
▲ FIN   + GER   ✳ TSI    CEU    GBR   TSI

**AFHRI cohort and all 1000 genomes samples**



**AFHRI cohort and European samples**