

# Bootstrap estimation of overall median and 90%ile

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## Bootstrap settings

Number of samples and one-tailed probability

```
nsamp <- 10000  
p <- 0.9
```

## Sampling

```
r1md <- r3md <- vector()  
r1v <- acid.pars$man.ph.r1  
r3v <- acid.pars$man.ph.r3  
  
for (i in 1:nsamp) {  
  s1 <- sample(r1v, replace = TRUE)  
  s3 <- sample(r3v, replace = TRUE)  
  
  r1md <- c(r1md, median(s1))  
  r3md <- c(r3md, median(s3))  
}
```

Check

```
median(r1v)
```

```
## [1] 0.6648668
```

```
median(r3v)
```

```
## [1] 0.23819
```

```
median(r1md)
```

```
## [1] 0.6648668
```

```
median(r3md)
```

```
## [1] 0.23819
```

```
quantile(r1md, 1:9/10)
```

```
##      10%      20%      30%      40%      50%      60%      70%      80%      90%  
## 0.6084847 0.6089017 0.6626218 0.6626218 0.6648668 0.6651733 0.6651733 0.6784625 0.7039975
```

```
quantile(r3md, 1:9/10)
```

##	10%	20%	30%	40%	50%	60%	70%	80%	90%
##	0.1661837	0.1685484	0.1949507	0.1949507	0.2381900	0.2393360	0.2393360	0.2793163	0.3097139