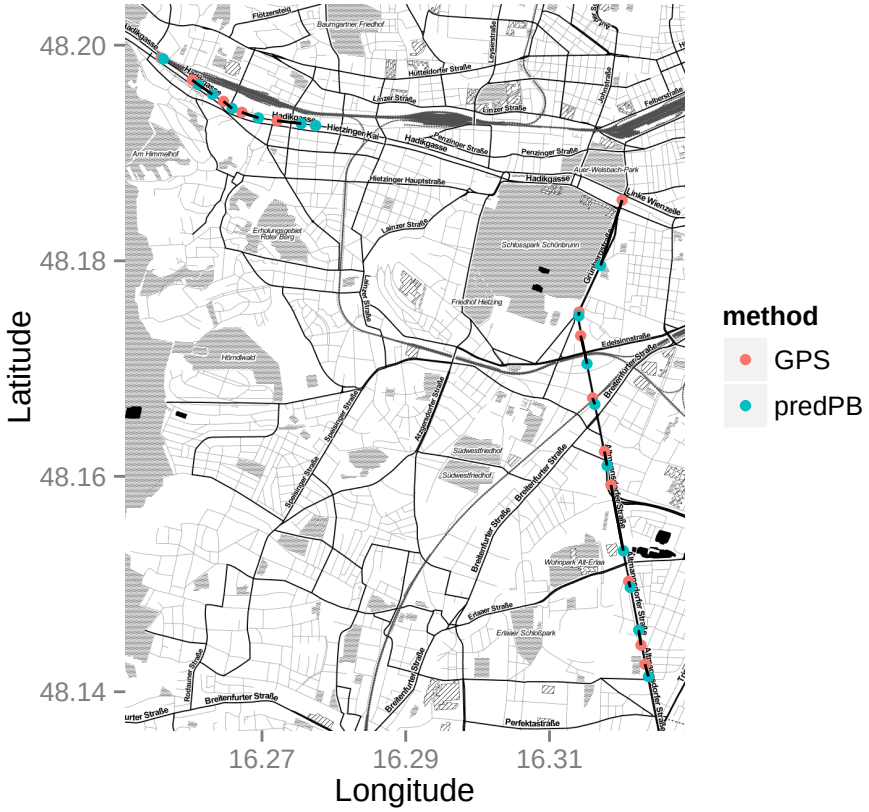
# Subscriber 367

## Distance error between observed and predicted handover:

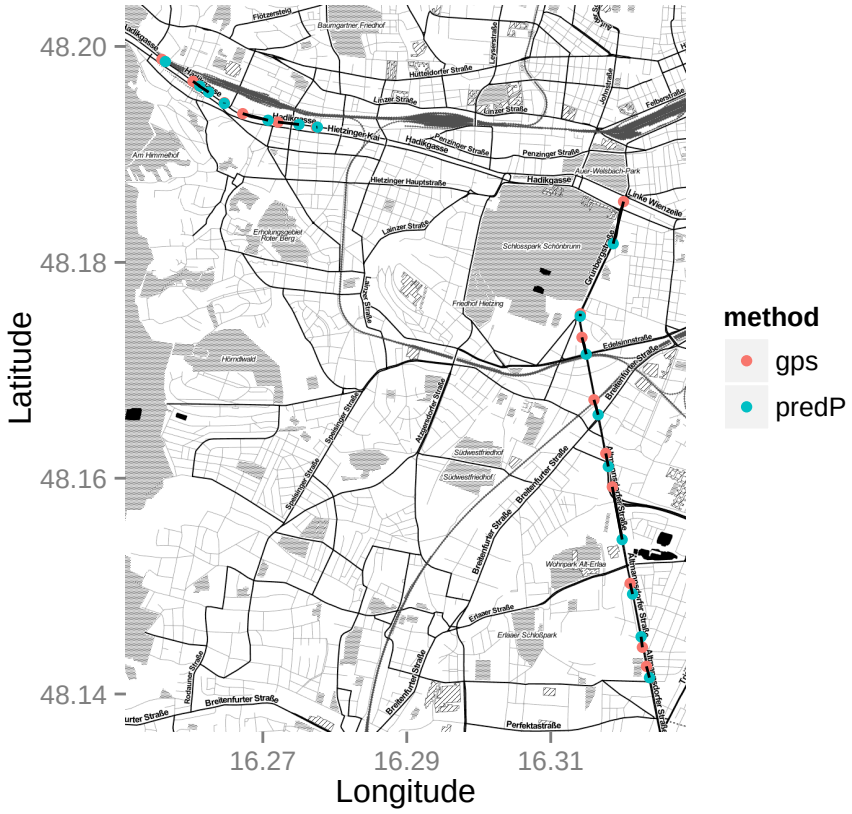
### Handover estimation with buildings

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   0.148   0.338   0.451   0.679   0.536   4.060
```



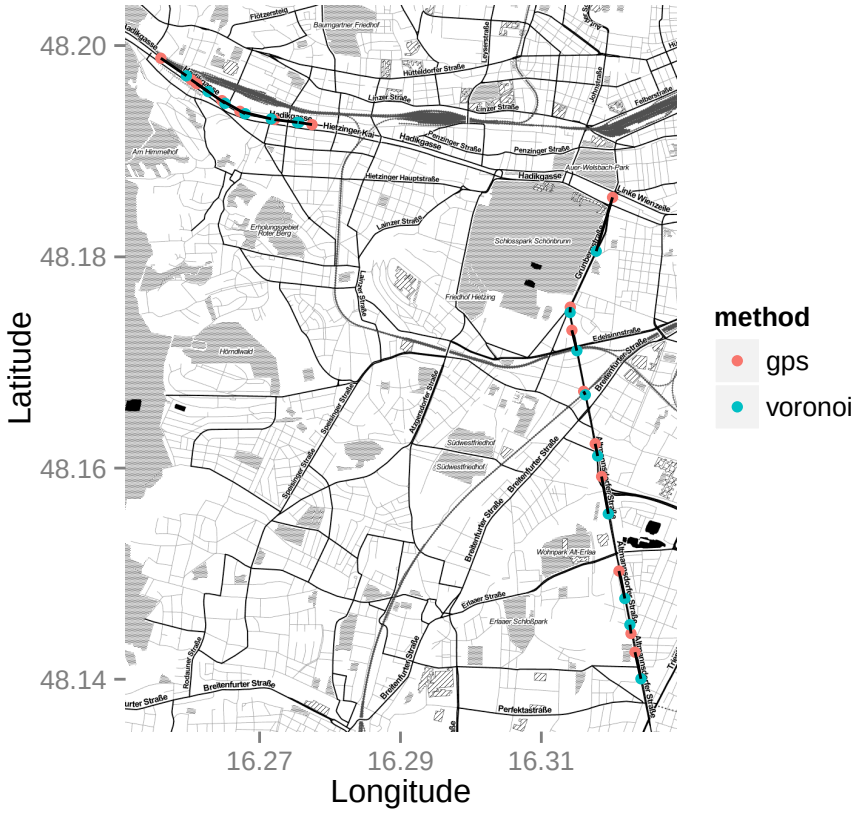

### Handover estimation without buildings

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   0.111   0.360   0.449   0.677   0.604   3.790
```

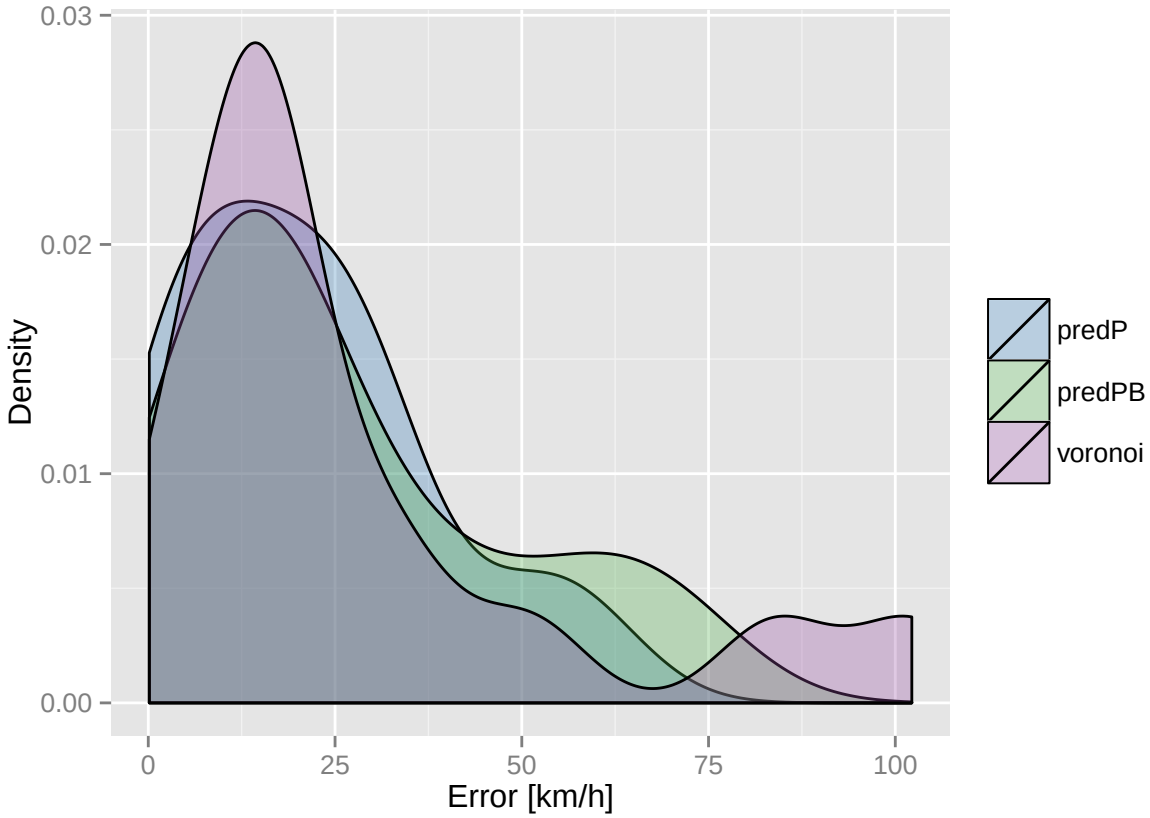



### Handover estimation Voronoi diagrams

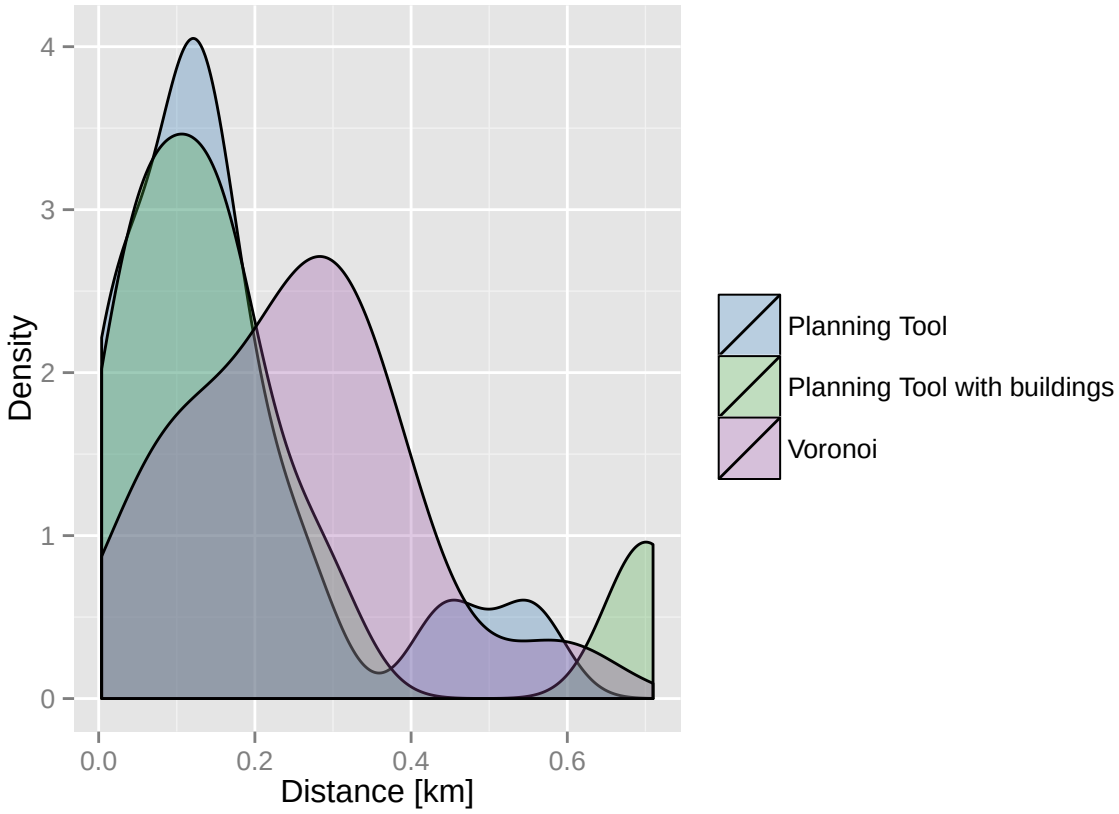
```
##     Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    0.013   0.280   0.409   0.669   0.639   4.080
```


48.20
48.18
48.16
48.14
Latitude
16.27
16.29
16.31
Longitude
method
gps
voronoi

### Handover deviation

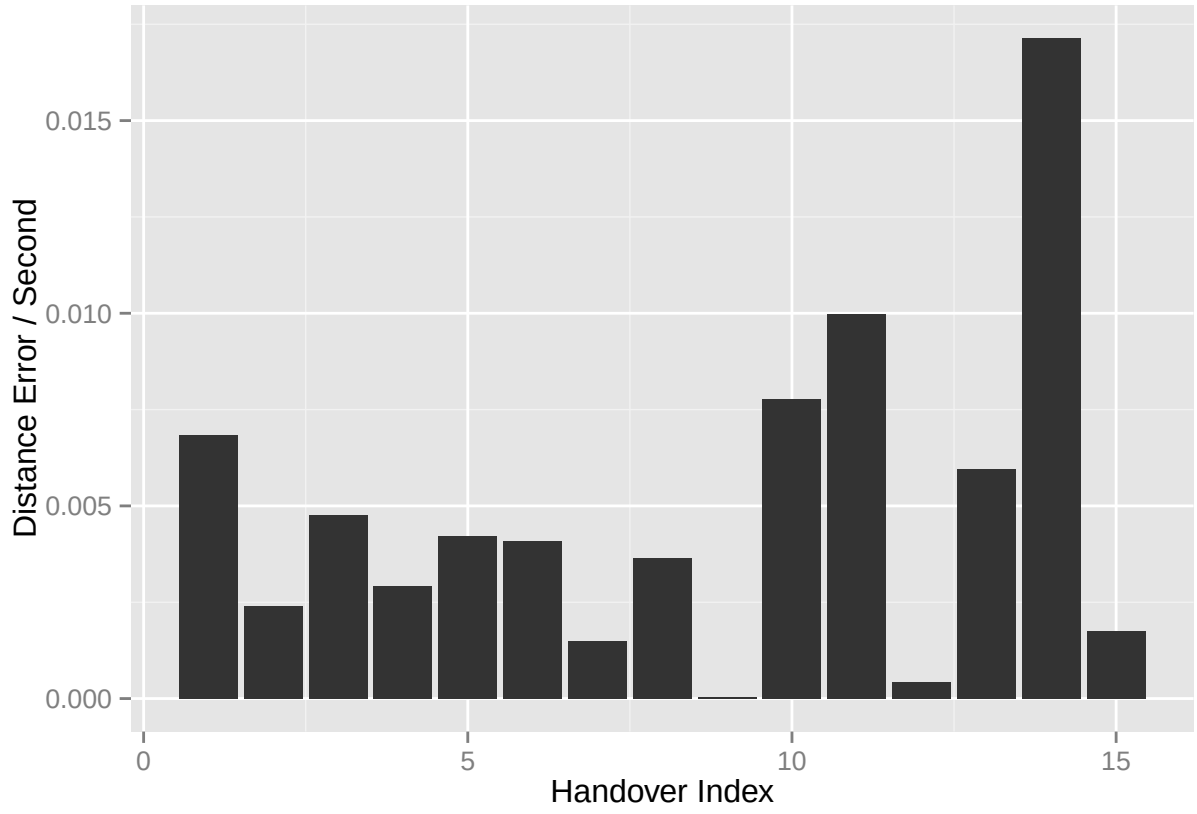



```
## RStudioGD
##         2
```



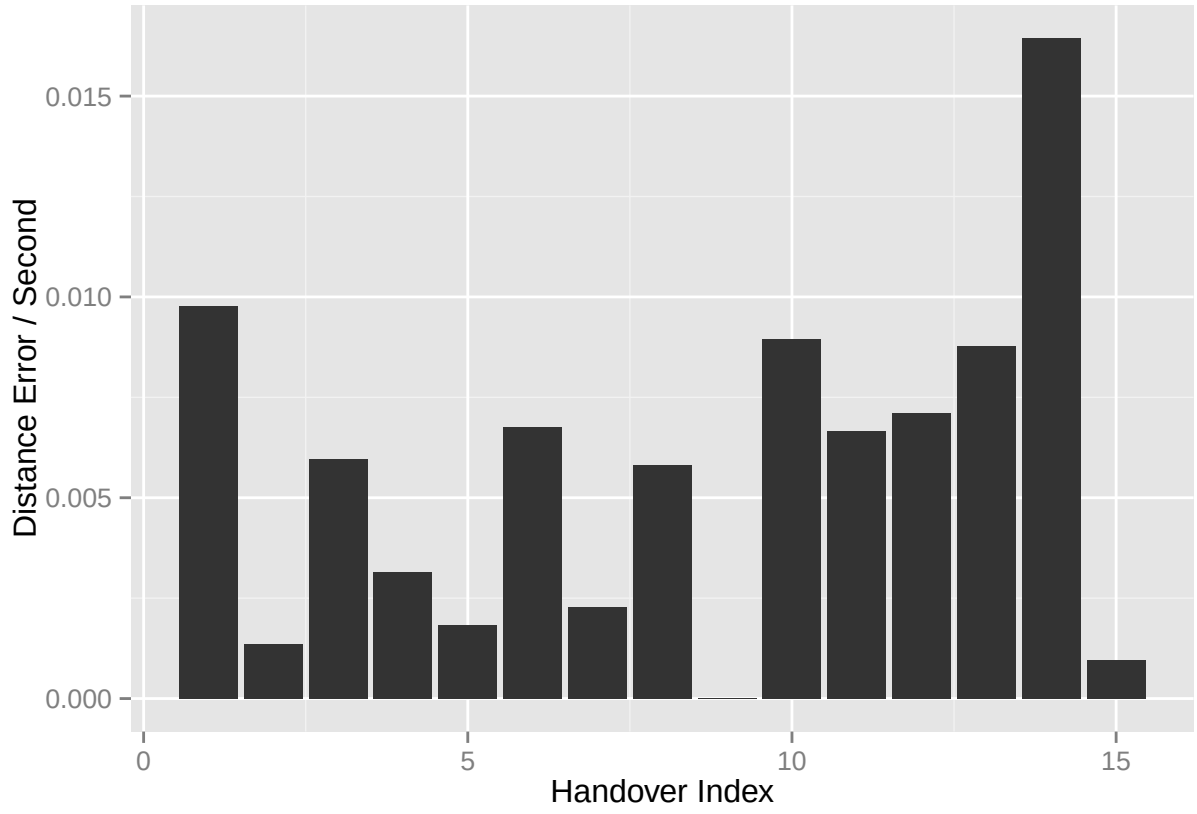

### Handover difference prediction without buildings

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##  0.0070  0.0747  0.1230  0.1630  0.1890  0.5520
```



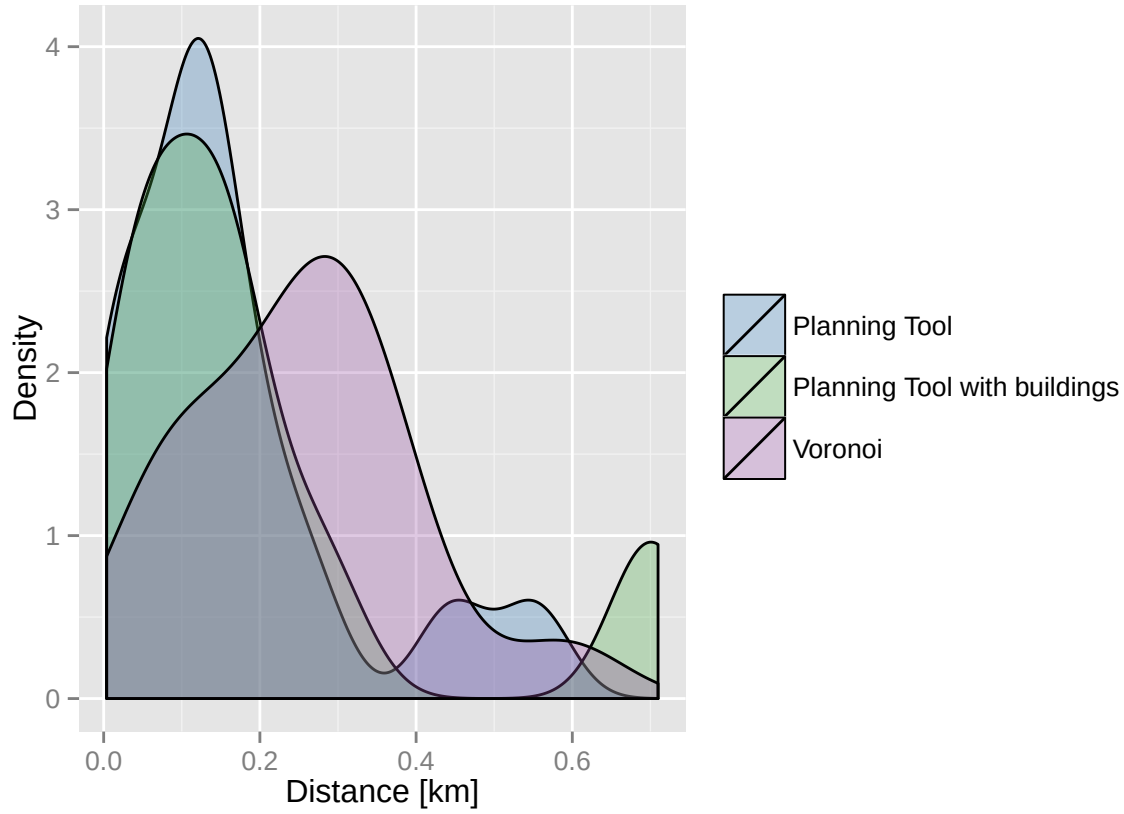

### Handover difference prediction with buildings

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##  0.0038  0.0685  0.1400  0.1970  0.2010  0.7100
```




### Handover difference voronoi

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##  0.0409  0.1380  0.2620  0.2520  0.3290  0.5920
```




```
## RStudioGD
##         2
```

#### Deviation Comparison

```
##      predP            predPB          voronoi
##  Min.   :0.0070   Min.   :0.0038   Min.   :0.0409
##  1st Qu.:0.0747   1st Qu.:0.0685   1st Qu.:0.1380
##  Median :0.1229   Median :0.1399   Median :0.2624
##  Mean   :0.1625   Mean   :0.1966   Mean   :0.2517
##  3rd Qu.:0.1889   3rd Qu.:0.2010   3rd Qu.:0.3293
##  Max.   :0.5524   Max.   :0.7098   Max.   :0.5916
```

## Difference between raw and adaption:

## Summary of estimated speed without adaption

#### Coverage prediction without buildings

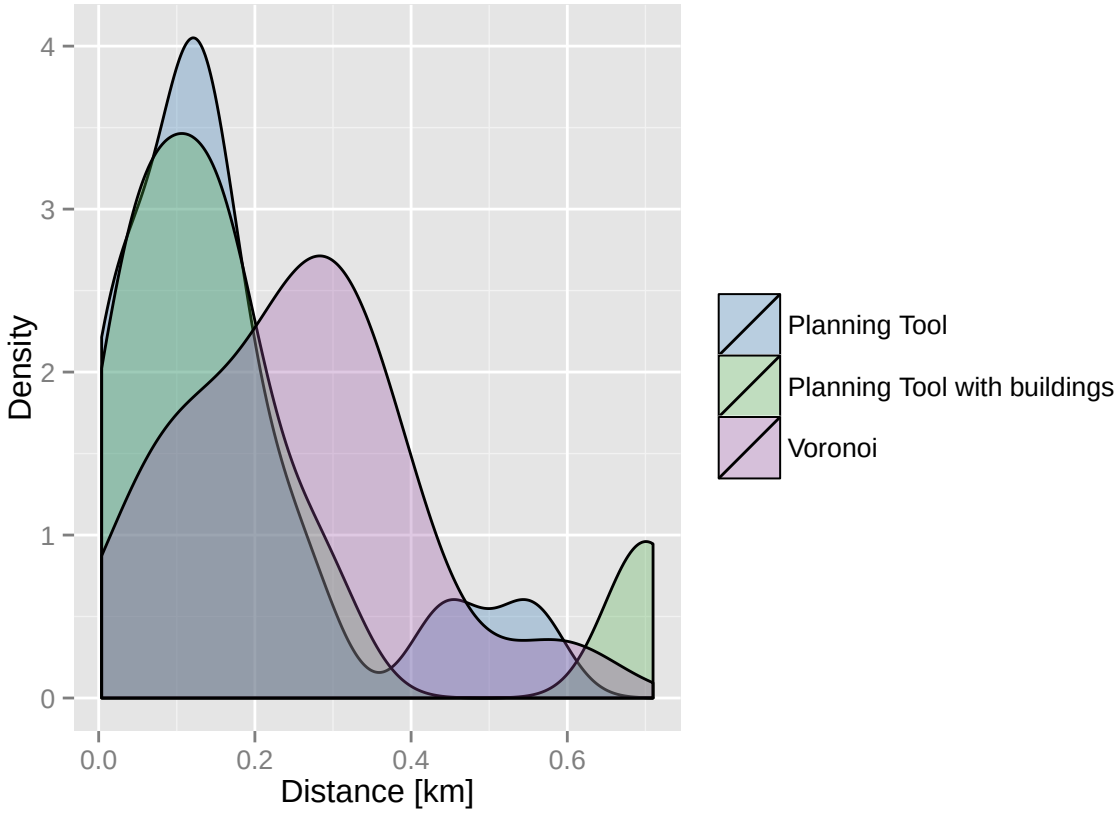
```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    17.7    34.1    51.5    54.3    72.7   109.0
```

### Coverage prediction with buildings

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    11.9    34.7    59.4    57.6    68.1   125.0
```

### Voronoi diagrams

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    1.91   32.70   42.20   54.60   62.50  155.00
```




```
## RStudioGD
##         2
```

### Speed Comparison

```
##      predP           predPB         voronoi
##  Min.   : 17.7   Min.   : 11.9   Min.   :  1.91
##  1st Qu.: 34.1   1st Qu.: 34.7   1st Qu.: 32.68
##  Median : 51.5   Median : 59.4   Median : 42.19
##  Mean   : 54.3   Mean   : 57.6   Mean   : 54.60
##  3rd Qu.: 72.7   3rd Qu.: 68.1   3rd Qu.: 62.47
##  Max.   :108.7   Max.   :125.2   Max.   :155.41
```

## Summary of estimated speed with adaption

### Coverage prediction without buildings

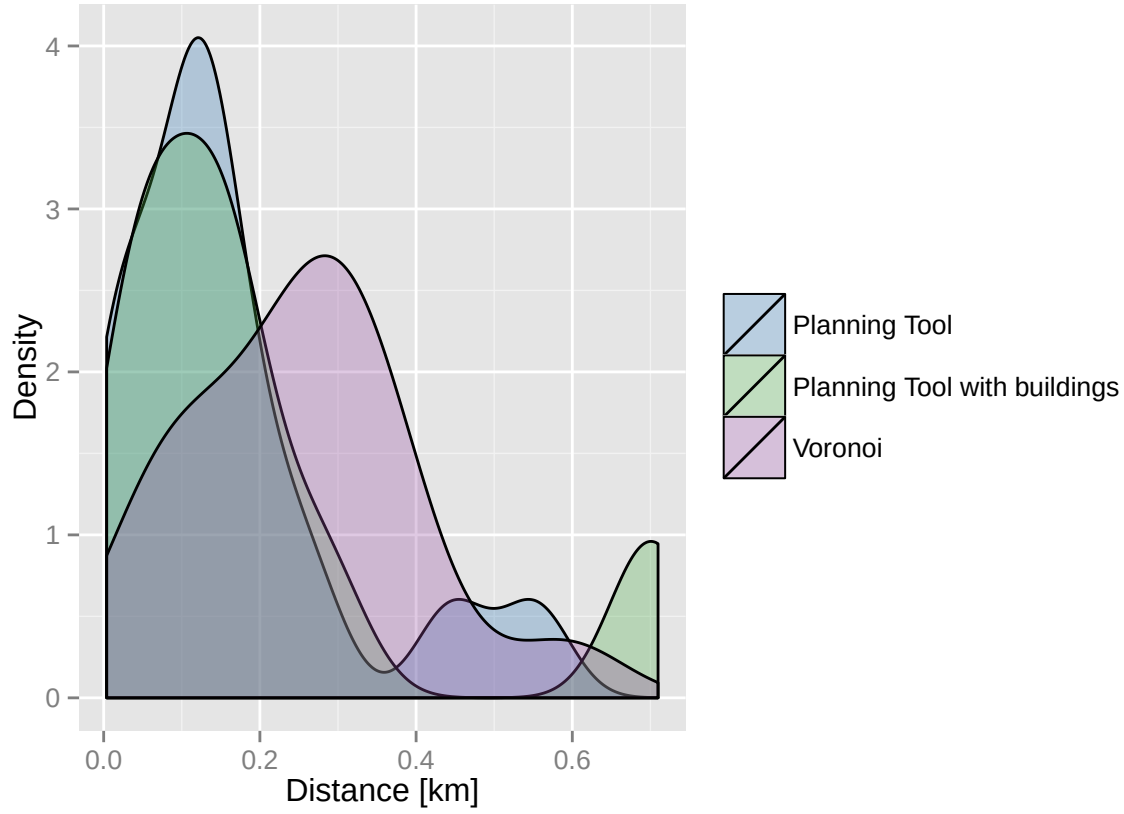
```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    17.7    41.7    50.4    51.5    62.0    83.9
```

### Coverage prediction with buildings

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    11.9    43.2    50.0    48.4    60.8    68.6
```

### Voronoi diagrams

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    1.91   37.90   49.10   45.60   53.60   86.60
```




```
## RStudioGD
##         2
```

### Speed Adapt Comparison

```
##    predPAdapt    predPBAdapt    voronoiAdapt
```

```
##  Min.   :17.7   Min.   :11.9   Min.   : 1.91
##  1st Qu.:41.7   1st Qu.:43.2   1st Qu.:37.93
##  Median :50.4   Median :50.0   Median :49.08
##  Mean   :51.5   Mean   :48.4   Mean   :45.61
##  3rd Qu.:62.0   3rd Qu.:60.8   3rd Qu.:53.58
##  Max.   :84.0   Max.   :68.6   Max.   :86.63
```

## Summary of speed errors without adaption:

### Coverage prediction without buildings

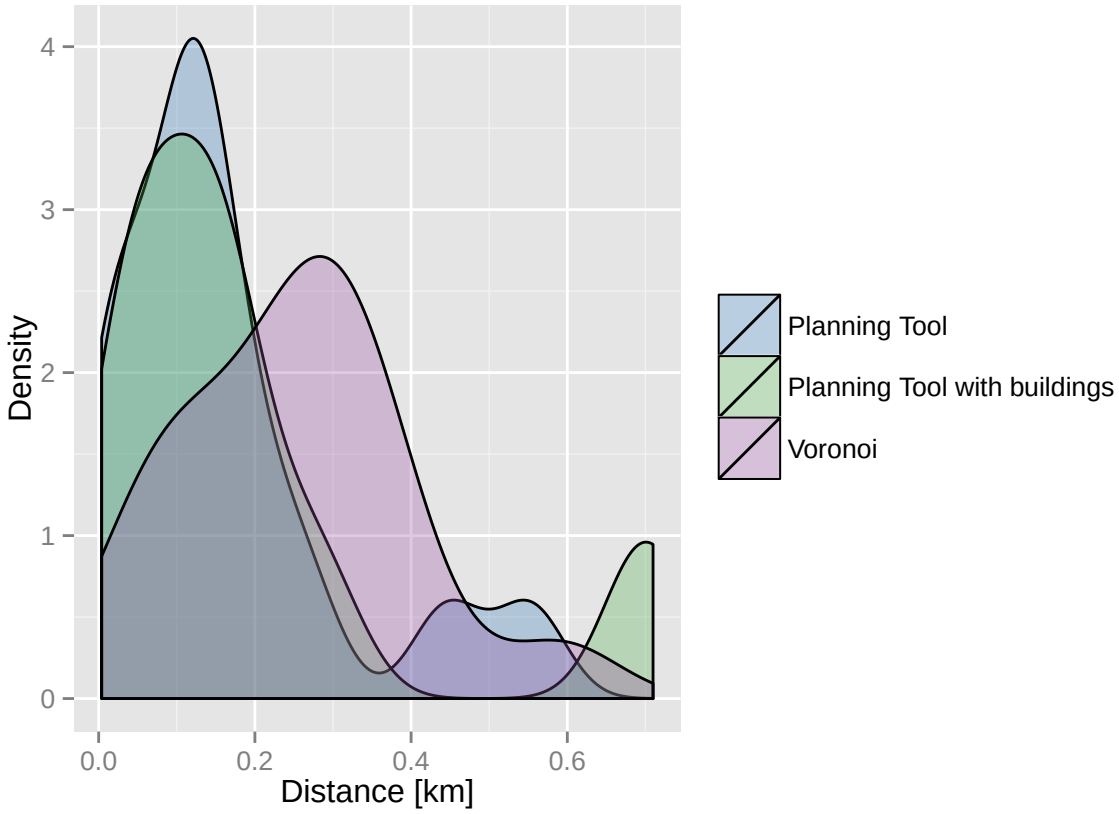
```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    1.55    6.89   17.00   21.10   29.50   58.80
```

### Coverage prediction with buildings

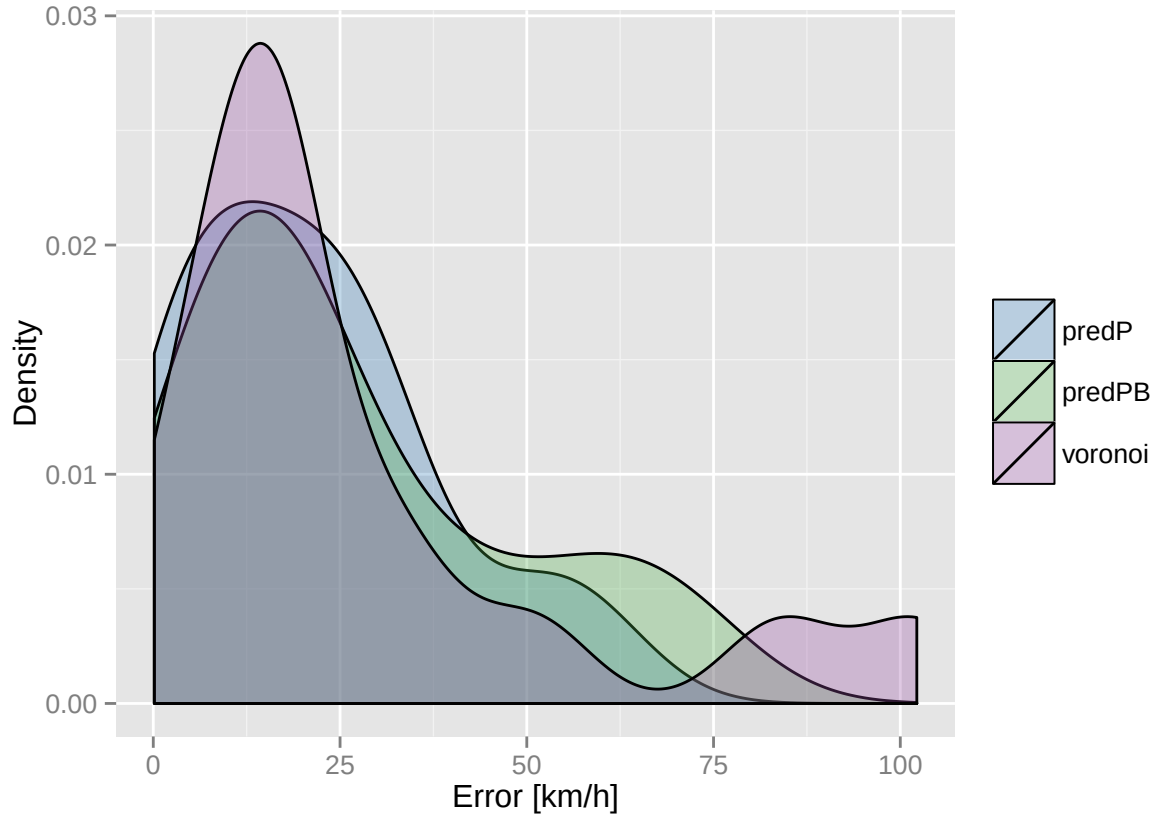
```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    1.55   10.30   19.60   26.40   37.10   72.00
```

### Voronoi diagrams

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    0.13   13.40   17.30   28.40   32.40  102.00
```



```
## RStudioGD
##         2
```




**Speed Error Comparison**

```
##      predP           predPB         voronoi
##  Min.   : 1.55   Min.   : 1.55   Min.   :  0.13
##  1st Qu.: 6.89   1st Qu.:10.31   1st Qu.: 13.39
##  Median :17.04   Median :19.56   Median : 17.31
##  Mean   :21.12   Mean   :26.38   Mean   : 28.45
##  3rd Qu.:29.51   3rd Qu.:37.14   3rd Qu.: 32.43
##  Max.   :58.76   Max.   :72.00   Max.   :102.21
```

## Summary of speed errors with adaption:

**Coverage prediction without buildings**

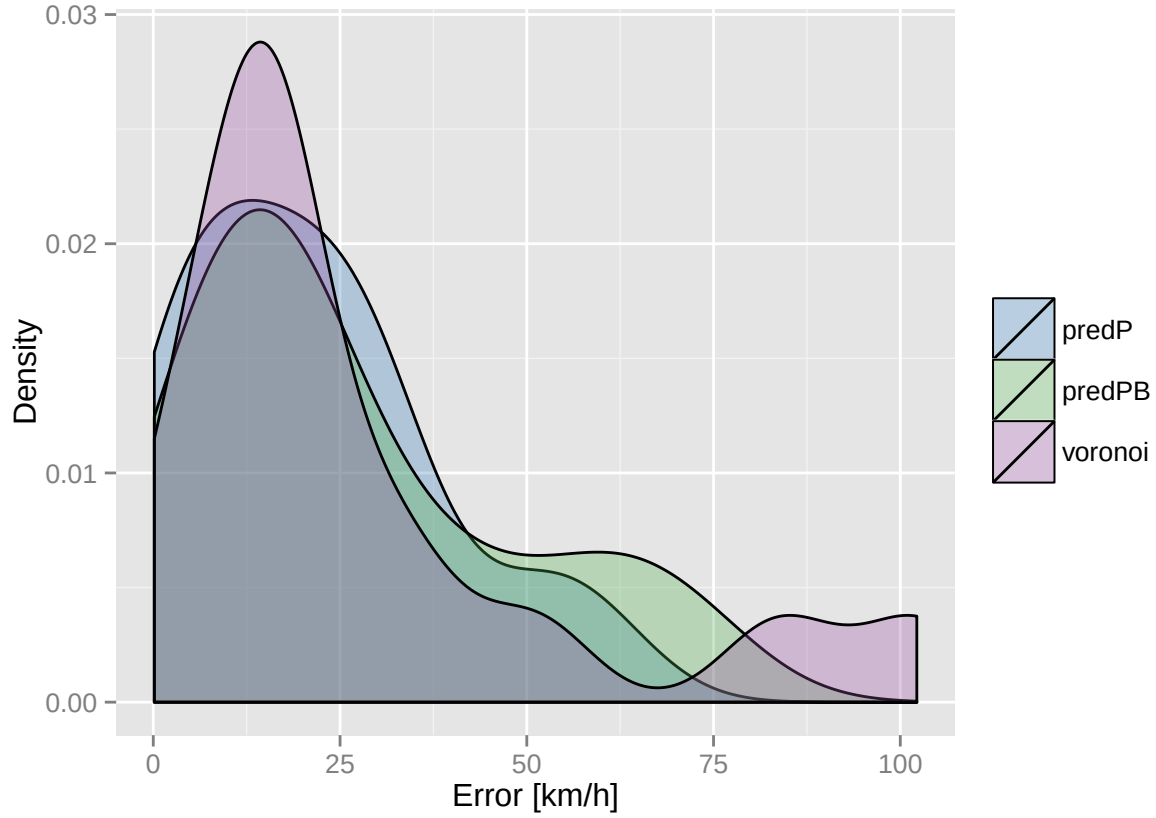
```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    0.10    2.80    8.19   13.30   26.10   32.30
```

**Coverage prediction with buildings**

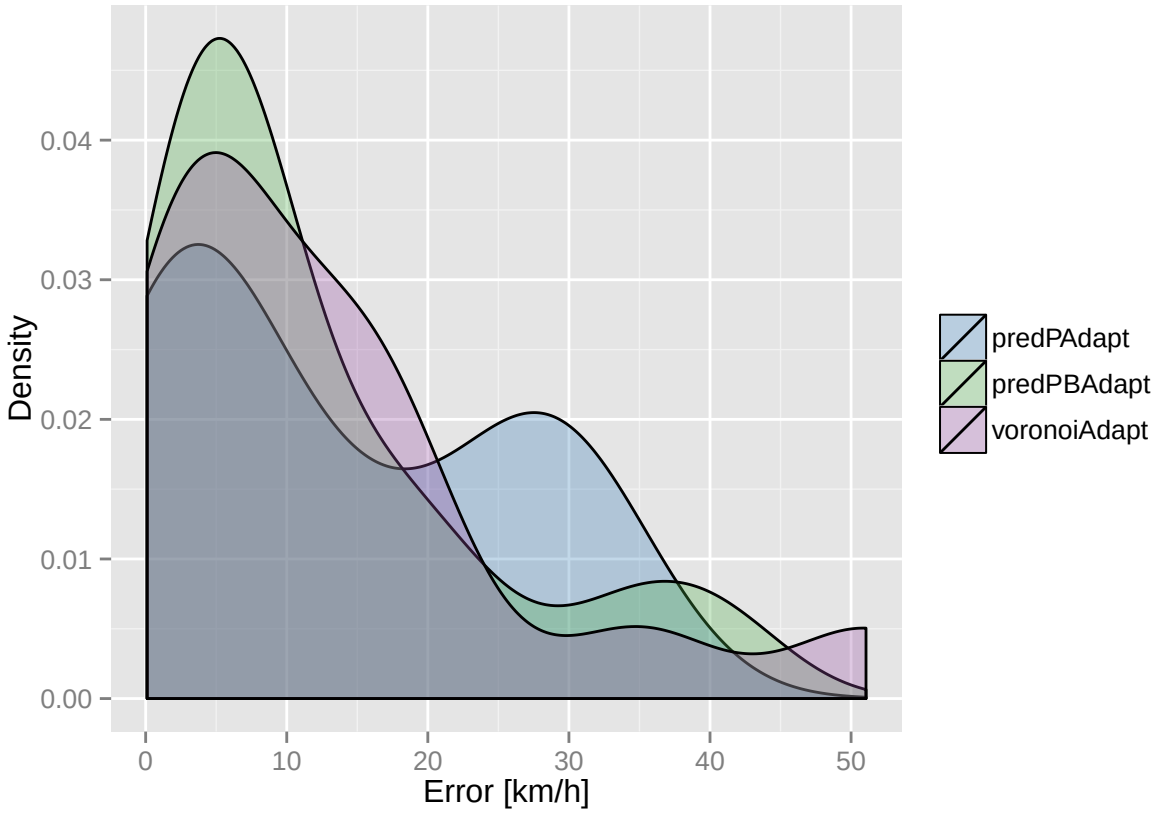
```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    1.55    3.39    7.84   11.90   16.40   40.60
```

**Voronoi diagrams**

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    0.13    3.14    7.36   13.00   16.80   51.10
```




```
## RStudioGD
##         2
```




**Speed Adapt Error Comparison**

```
##    predPAdapt     predPBAdapt     voronoiAdapt
##  Min.   : 0.10   Min.   : 1.55   Min.   : 0.13
##  1st Qu.: 2.80   1st Qu.: 3.39   1st Qu.: 3.14
##  Median : 8.19   Median : 7.84   Median : 7.36
##  Mean   :13.31   Mean   :11.94   Mean   :13.04
##  3rd Qu.:26.07   3rd Qu.:16.39   3rd Qu.:16.77
##  Max.   :32.30   Max.   :40.59   Max.   :51.06
```