

R Notebook

```
tobler <- function(x){  
  6 * exp(-3.5 * abs(x + .05))  
}
```

```
library(tidyverse)
```

```
## Loading tidyverse: ggplot2  
## Loading tidyverse: tibble  
## Loading tidyverse: tidyr  
## Loading tidyverse: readr  
## Loading tidyverse: purrr  
## Loading tidyverse: dplyr
```

```
## Conflicts with tidy packages -----
```

```
## filter(): dplyr, stats  
## lag():    dplyr, stats
```

```
slope <- seq(-1, 1, .01)  
qplot(slope, tobler(slope), geom = 'line' ) +  
  geom_vline(xintercept = 0, linetype = 2) +  
  labs(x = 'Slope (rise over run)', y = 'Walking speed (m/s)', title = "Tobler's hiking function") +  
  theme_classic(base_size = 20)
```

