

## Question6

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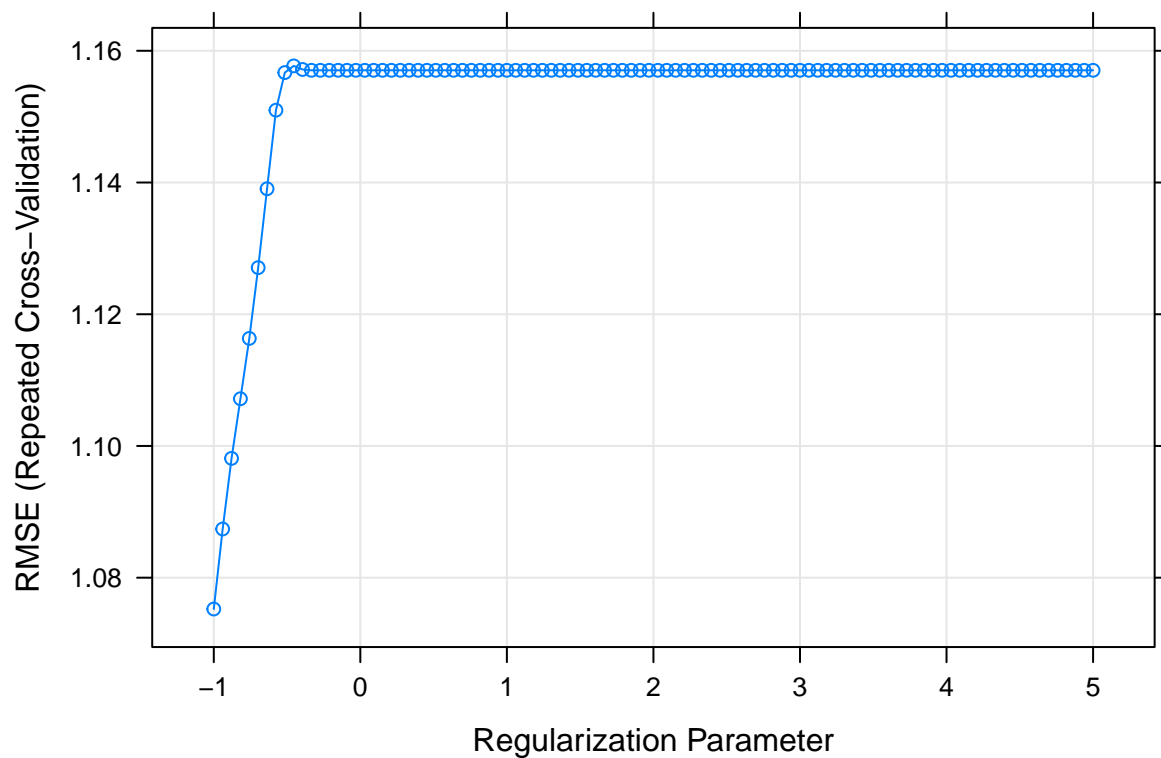
```
##      hurrican_id
## 1      betsy.1965
## 2    camille.1969
## 3      agnes.1972
## 4      fifi.1974
## 5      david.1979
## 6    frederic.1979
## 7      allen.1980
## 8      alicia.1983
## 9      elena.1985
## 10     juan.1985
## 11    gilbert.1988
## 12     hugo.1989
## 13     bob.1991
## 14    andrew.1992
## 15     luis.1995
## 16    marilyn.1995
## 17     opal.1995
## 18    roxanne.1995
## 19     fran.1996
## 20    georges.1998
## 21     mitch.1998
## 22     floyd.1999
## 23    michelle.2001
## 24    isidore.2002
## 25     isabel.2003
## 26    charley.2004
## 27    frances.2004
## 28     ivan.2004
## 29     jeanne.2004
## 30    dennis.2005
## 31    katrina.2005
## 32     rita.2005
## 33     stan.2005
## 34     wilma.2005
## 35     dean.2007
## 36     dolly.2008
## 37    gustav.2008
## 38     ike.2008
## 39     alex.2010
## 40     karl.2010
## 41     irene.2011
## 42     isaac.2012
## 43     sandy.2012
```

##	deaths
## betsy.1965	81
## camille.1969	256
## agnes.1972	124
## fifi.1974	8000
## david.1979	2068
## frederic.1979	12
## allen.1980	269
## alicia.1983	21
## elena.1985	9
## juan.1985	74
## gilbert.1988	318
## hugo.1989	56
## bob.1991	17
## andrew.1992	65
## luis.1995	19
## marilyn.1995	8
## opal.1995	27
## roxanne.1995	14
## fran.1996	26
## georges.1998	604
## mitch.1998	19325
## michelle.2001	48
## isabel.2003	50
## charley.2004	40
## frances.2004	49
## jeanne.2004	3035
## dennis.2005	89
## katrina.2005	1833
## rita.2005	62
## stan.2005	1668
## wilma.2005	23
## dean.2007	45
## gustav.2008	112
## ike.2008	195
## alex.2010	52
## karl.2010	22
## isaac.2012	41
## sandy.2012	286

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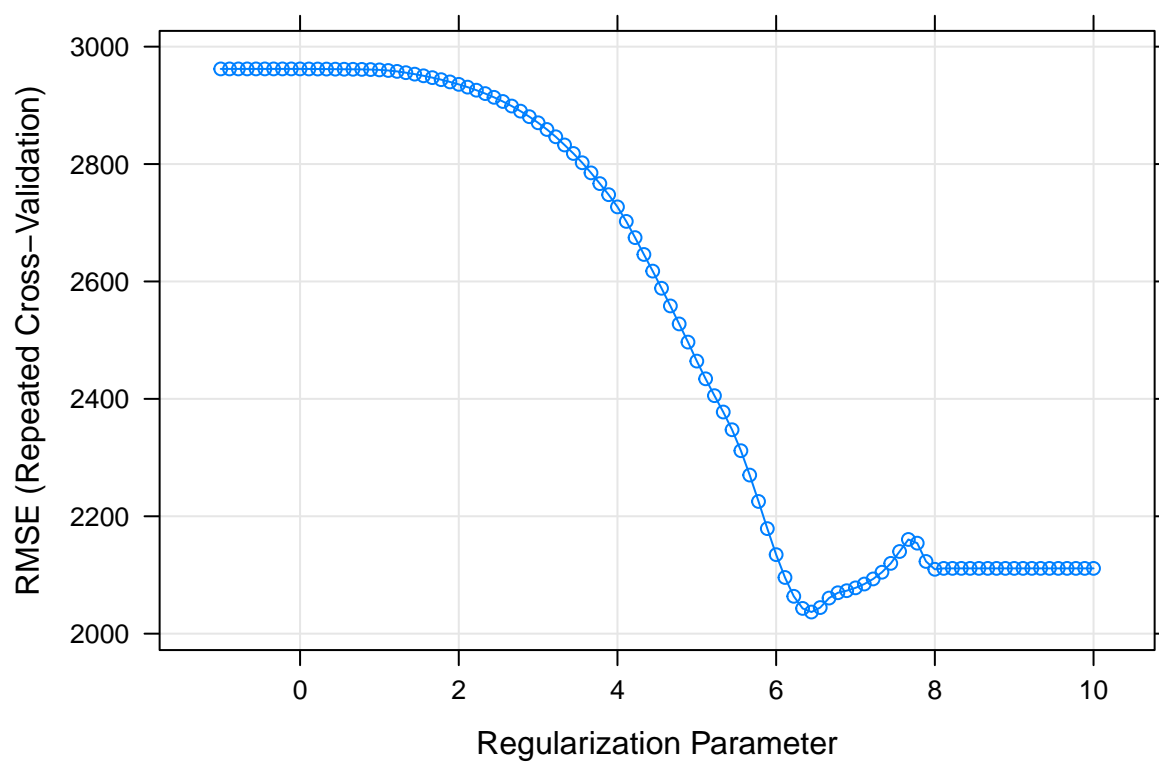
## Lasso for damage



```
## alpha lambda
## 1      1 0.3678794
```

```
## 13 x 1 sparse Matrix of class "dgCMatrix"
##              s1
## (Intercept) -35.062655617
## season      0.018197605
## month       .
## natureNR    .
## natureTS    .
## maxspeed    0.002221387
## meanspeed   .
## maxpressure .
## meanpressure .
## hours       .
## total_pop   .
## percent_poor .
## percent_usa .
```

## Lasso for death

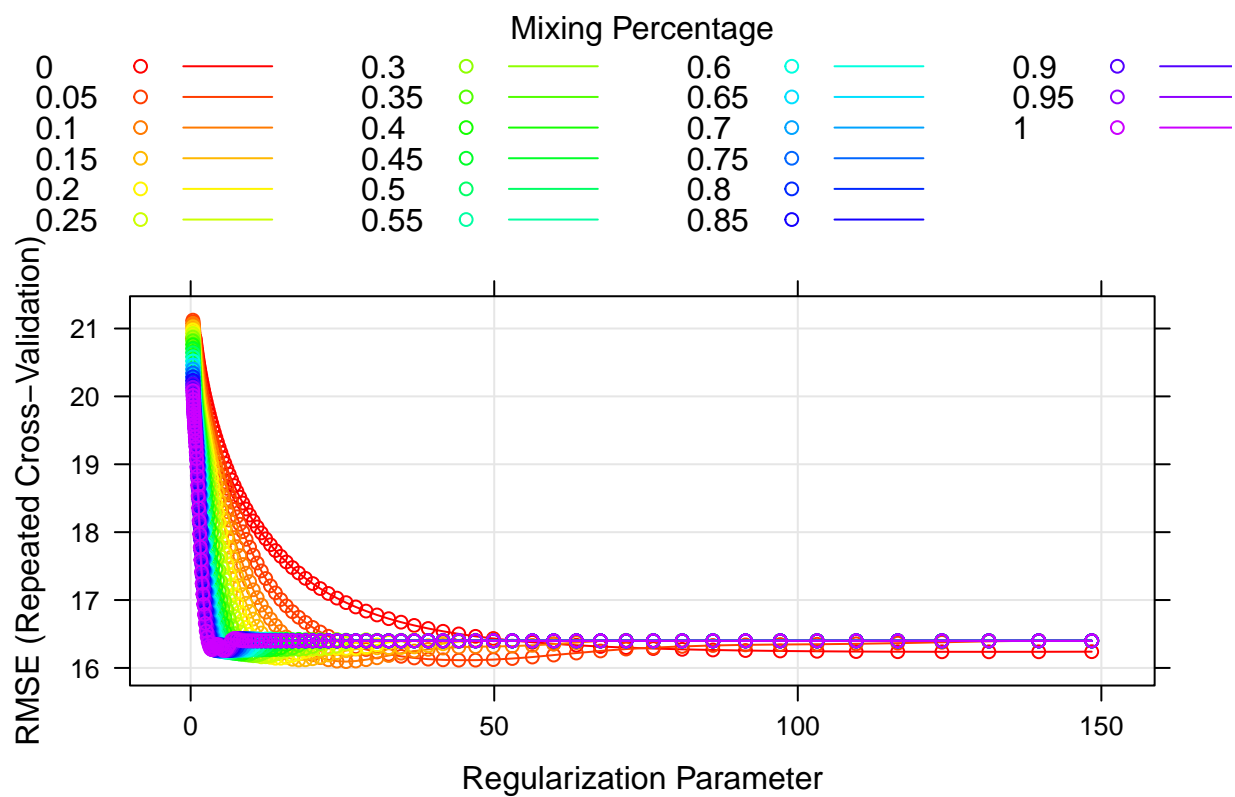


```
##      alpha  lambda
## 68      1 629.197

## 13 x 1 sparse Matrix of class "dgCMatrix"
##              s1
## (Intercept) -58.12940
## season      .
## month       53.47667
## natureNR     .
## natureTS     .
## maxspeed     .
## meanspeed    .
## maxpressure  .
## meanpressure .
## hours        .
## total_pop    .
## percent_poor 65.55242
## percent_usa  .
```

## Elastic for damage

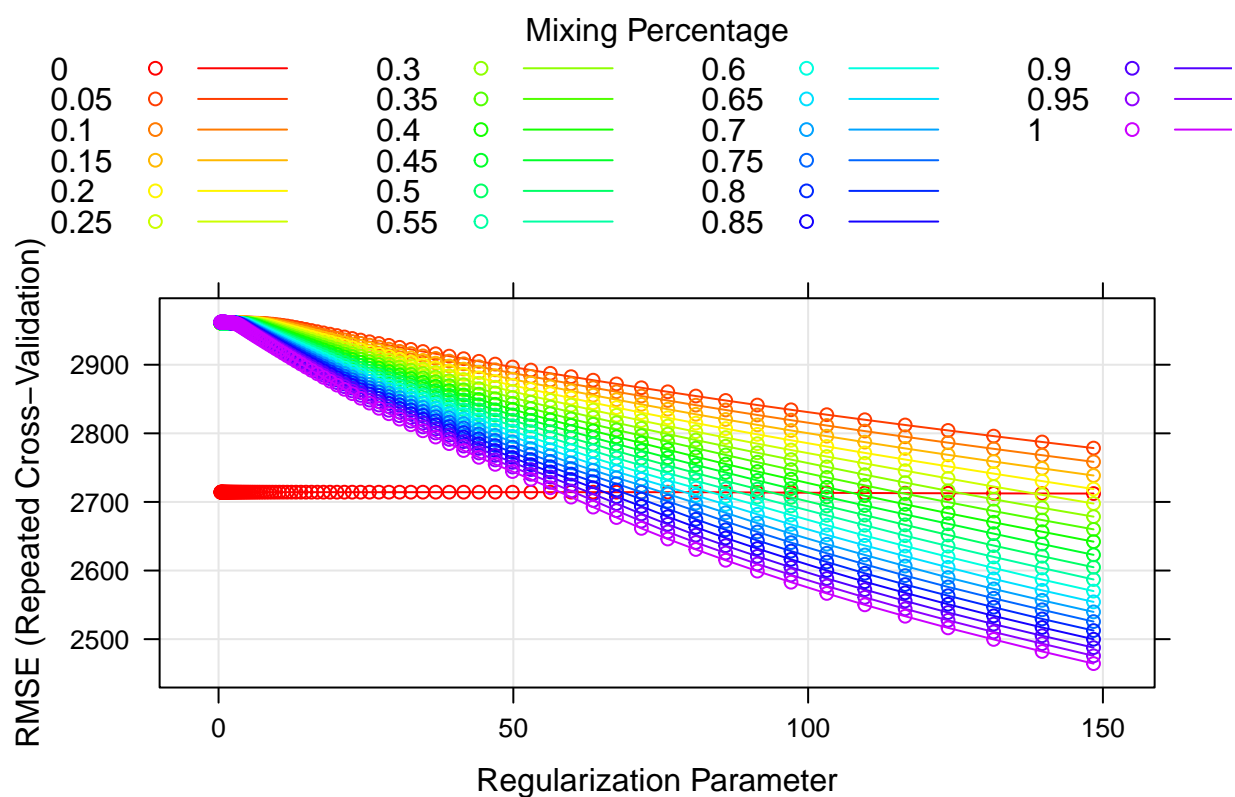
```
##      alpha  lambda
## 271    0.1 25.5957
```



```
## 13 x 1 sparse Matrix of class "dgCMatrix"
##              s1
## (Intercept) -3.339247e+02
## season      1.691054e-01
## month       .
## natureNR    .
## natureTS    .
## maxspeed    3.058636e-02
## meanspeed   3.294414e-02
## maxpressure .
## meanpressure .
## hours       .
## total_pop   1.019564e-06
## percent_poor .
## percent_usa 1.695701e-02
```

### Elastic for death

```
##      alpha  lambda
## 2100      1 148.4132
```



```
## 13 x 1 sparse Matrix of class "dgCMatrix"
##              s1
## (Intercept)  1.981886e+04
## season      .
## month       4.089556e+02
## natureNR    .
## natureTS    .
## maxspeed    5.115409e+00
## meanspeed   .
## maxpressure -2.317817e+01
## meanpressure .
## hours      .
## total_pop   -4.959985e-04
## percent_poor 8.487112e+01
## percent_usa  .
```