

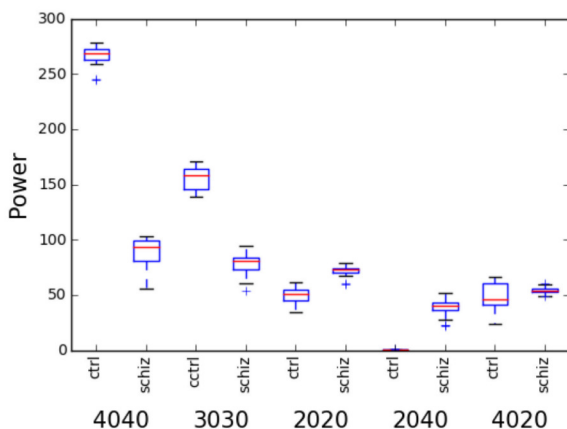
0.1.2 Instantiating the model

```
In [3]: test_model = VierlingSimpleModelRobust(controlparams,schizparams,seeds)
```

0.1.3 Run simulations

```
In [4]: print 'Run simulations (this might take 15-20 minutes)'\nprint '\\n 4040'\nmcontrol4040,mschiz4040,control4040,schiz4040 =\ntest_model.produce_4040_plus()\nprint '\\n 3030'\nmcontrol3030,mschiz3030,control3030,schiz3030 =\ntest_model.produce_3030_plus()\nprint '\\n 2020'\nmcontrol2020,mschiz2020,control2020,schiz2020 =\ntest_model.produce_2020_plus()\nprint '\\n 2040'\nmcontrol2040,mschiz2040,control2040,schiz2040 =\ntest_model.produce_2040_plus()\nprint '\\n 4020'\nmcontrol4020,mschiz4020,control4020,schiz4020 =\ntest_model.produce_4020_plus()
```

(a) Create model instances and run simulation



(b) Boxplot of model data

```
In [11]: t4040,p4040 = ttest_ind(control4040,schiz4040)\nt3030,p3030 = ttest_ind(control3030,schiz3030)\nt2020,p2020 = ttest_ind(control2020,schiz2020)\nt2040,p2040 = ttest_ind(control2040,schiz2040)\nt4020,p4020 = ttest_ind(control4020,schiz4020)\nprint '40Hz power at 40Hz drive: F=',t4040,'p=',p4040\nprint '30Hz power at 30Hz drive: F=',t3030,'p=',p3030\nprint '20Hz power at 20Hz drive: F=',t2020,'p=',p2020\nprint '20Hz power at 40Hz drive: F=',t2040,'p=',p2040\nprint '40Hz power at 20Hz drive: F=',t4020,'p=',p4020
```

```
40Hz power at 40Hz drive: F= 51.8698283512 p= 7.00615973185e-37\n30Hz power at 30Hz drive: F= 23.4080401139 p= 3.545942616e-24\n20Hz power at 20Hz drive: F= -11.3292852332 p= 9.5206066581e-14\n20Hz power at 40Hz drive: F= -19.198563914 p= 3.72735850992e-21\n40Hz power at 20Hz drive: F= -2.08532975168 p= 0.0438080382856
```

(c) Statistical analysis of model data