Homework Two – GWAS

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Results

Table 1: Top Ten Associations P1df

	Chromosome	Position	Strand	A1	A2	N	effB	se_effB	chi2.1df	P1df
rs2281012	6	114778113	+	C	T	170	94.4	20.1	22.1	0
rs6875250	5	129104073	+	A	T	169	93.2	21.1	19.5	0
rs10069615	5	129107677	+	G	T	171	92.0	21.0	19.3	0
rs10976053	9	7116175	+	T	G	169	77.8	17.9	19.0	0
rs1107553	22	40991971	+	A	G	171	-88.8	20.4	18.8	0
rs10072995	5	129119238	+	G	C	167	91.3	21.2	18.5	0
rs2010437	7	22404420	+	C	G	171	72.1	16.9	18.2	0
rs9835843	3	55746896	+	G	C	167	91.3	21.6	17.9	0
rs6025956	20	55984705	+	C	A	168	85.9	20.3	17.8	0
rs759615	2	56392222	+	C	T	169	73.1	17.3	17.8	0

Table 2: Top Ten Associations P2df

	Chromosome	Position	Strand	A1	A2	N	effB	effBB	chi2.2df	P2df	Pc1df
rs2281012	6	114778113	+	C	T	170	94.4	266.5	26.0	0	0
rs6875250	5	129104073	+	A	T	169	93.2	238.8	22.2	0	0
rs10069615	5	129107677	+	G	T	171	92.0	239.8	22.3	0	0
rs10976053	9	7116175	+	T	G	169	77.8	206.5	24.7	0	0
rs1107553	22	40991971	+	A	G	171	-88.8	-191.6	18.9	0	0
rs10072995	5	129119238	+	G	C	167	91.3	237.5	21.5	0	0
rs2010437	7	22404420	+	C	G	171	72.1	174.5	24.8	0	0
rs9835843	3	55746896	+	G	C	167	91.3	311.9	25.3	0	0
rs6025956	20	55984705	+	C	A	168	85.9	213.5	19.3	0	0
rs759615	2	56392222	+	C	T	169	73.1	170.4	20.3	0	0

Inflation Factor

```
lambda(model)
```

```
## $estimate
## [1] 1.052272
##
## $se
## [1] 1.972706e-05
```

```
estlambda(model[, "P1df"])
```

```
## $estimate
## [1] 1.052272
##
## $se
## [1] 1.972706e-05
```

```
estlambda(model[, "P2df"])
```

```
## $estimate
## [1] 1.200795
##
## $se
## [1] 0.0005639084
```
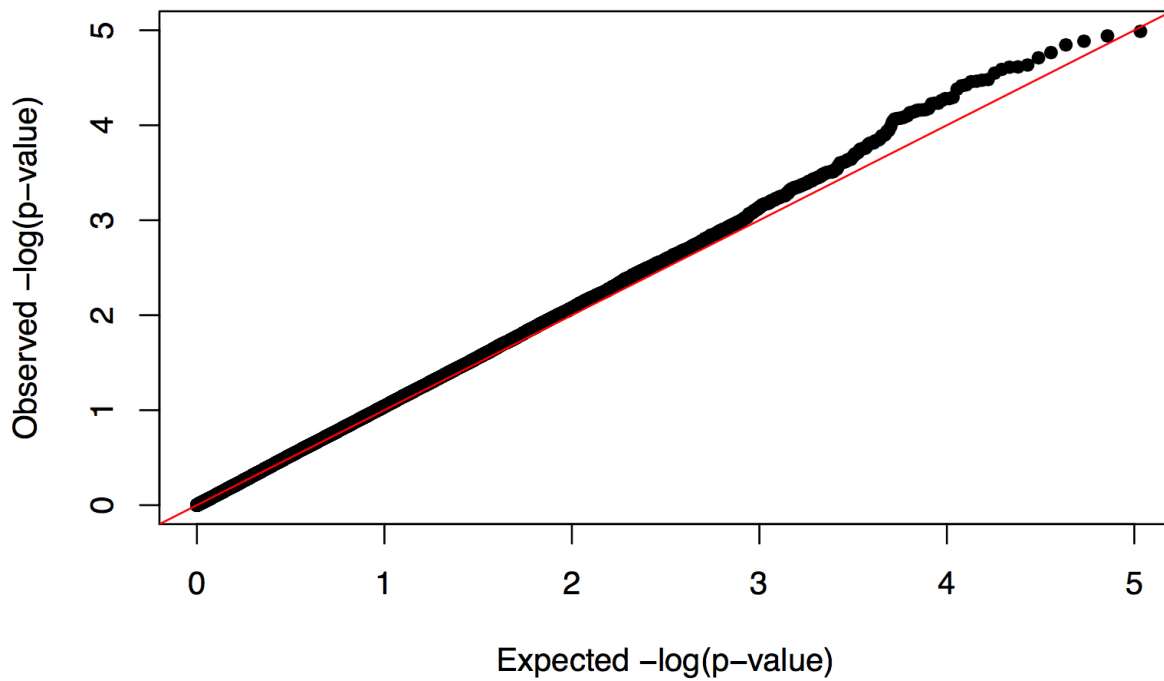
QQ-Plot

Figure 1: QQ-Plot