|  |  |  |
| --- | --- | --- |
|  | 400 | 800 |
| S1 | Mean of V: -0.002691918  Sd of V: 0.002690264 | Mean of V: -0.001938905  Sd of V: 0.001842969 |
| S2 | Mean of V: -0.003342336  Sd of V: 0.003714314 | Mean of V: -0.001869793  Sd of V: 0.001787943 |
| S3 | Mean of V: 0.9963282  Sd of V: 0.01236929 | Mean of V: 0.9976003  Sd of V: 0.01171521 |
| S4 | Mean of V: 0.9957648  Sd of V: 0.01248436 | Mean of V: 0.9975683  Sd of V: 0.01167661 |

Discrete Q

|  |  |  |
| --- | --- | --- |
|  | 400 | 800 |
| S1 | Mean of V: -0.03805118  Sd of V: 0.001923548 | Sample Size: 800  Mean of V: -0.03269589  Sd of V: 0.000934912 |
| S2 | Mean of V: -0.03394315  Sd of V: 0.001265796 | Mean of V: -0.01998397  Sd of V: 0.0008255576 |
| S3 | Mean of V: 0.9583729  Sd of V: 0.01135834 | Mean of V: 0.9388464  Sd of V: 0.01150865 |
| S4 | Mean of V: 0.9474724  Sd of V: 0.01186859 | Mean of V: 0.9767124  Sd of V: 0.01194097 |

S3

0.8 3.15

> colMeans(result\_03)

V1 V2

0.01346775 0.52612132

> apply(result\_03,2,sd)

V1 V2

0.08725666 0.10668234

> colMeans(sqrt(cov\_03))

V1 V2

0.08817538 0.10970726

> lowerCI=result\_03-sqrt(cov\_03)\*1.96

> upperCI=result\_03+sqrt(cov\_03)\*1.96

> mean(lowerCI[,1]\*upperCI[,1]<0)

[1] 0.958

> mean((lowerCI[,2]-0.5)\*(upperCI[,2]-0.5)<0)

[1] 0.948

> result\_03=read.csv("results/simulation-test/beta\_03\_obs 800 0.8 3.15 .csv")[,2:3]

> cov\_03=read.csv("results/simulation-test/cov\_03\_obs 800 0.8 3.15 .csv")[,2:3]

> colMeans(result\_03)

V1 V2

0.008976114 0.473321454

> apply(result\_03,2,sd)

V1 V2

0.05230236 0.05929952

> colMeans(sqrt(cov\_03))

V1 V2

0.04988468 0.06214203

> lowerCI=result\_03-sqrt(cov\_03)\*1.96

> upperCI=result\_03+sqrt(cov\_03)\*1.96

> mean(lowerCI[,1]\*upperCI[,1]<0)

[1] 0.932

> mean((lowerCI[,2]-0.5)\*(upperCI[,2]-0.5)<0)

[1] 0.926

> beta\_400=read.csv("results/simulation-test/beta\_03\_obs 400 0.8 3.15 .csv")[,2:3]

> beta\_800=read.csv("results/simulation-test/beta\_03\_obs 800 0.8 3.15 .csv")[,2:3]

> v=sim\_value1(betahat=beta\_400,beta=beta0,mu0=mu2,testN=1000)

Mean of V: 0.9907398

Sd of V: 0.0152641

> v=sim\_value1(betahat=beta\_800,beta=beta0,mu0=mu2,testN=1000)

Mean of V: 0.9965183

Sd of V: 0.01196673

0.85 3.15

> mean(lowerCI[,1]\*upperCI[,1]<0)

[1] 0.956

> mean((lowerCI[,2]-0.5)\*(upperCI[,2]-0.5)<0)

[1] 0.946

> colMeans(result\_03)

V1 V2

0.01318994 0.52236207

> apply(result\_03,2,sd)

V1 V2

0.08784543 0.10666337

> colMeans(sqrt(cov\_03))

V1 V2

0.08871875 0.10964299

> lowerCI=result\_03-sqrt(cov\_03)\*1.96

> upperCI=result\_03+sqrt(cov\_03)\*1.96

> mean(lowerCI[,1]\*upperCI[,1]<0)

[1] 0.956

> mean((lowerCI[,2]-0.5)\*(upperCI[,2]-0.5)<0)

[1] 0.946

> result\_03=read.csv("results/simulation-test/beta\_03\_obs 800 0.85 3.15 .csv")[,2:3]

> cov\_03=read.csv("results/simulation-test/cov\_03\_obs 800 0.85 3.15 .csv")[,2:3]

> colMeans(result\_03)

V1 V2

0.008734564 0.471017874

> apply(result\_03,2,sd)

V1 V2

0.05269924 0.05954408

> colMeans(sqrt(cov\_03))

V1 V2

0.05030356 0.06235582

> lowerCI=result\_03-sqrt(cov\_03)\*1.96

> upperCI=result\_03+sqrt(cov\_03)\*1.96

> mean(lowerCI[,1]\*upperCI[,1]<0)

[1] 0.93

> mean((lowerCI[,2]-0.5)\*(upperCI[,2]-0.5)<0)

[1] 0.916

> v=sim\_value1(betahat=beta\_400,beta=beta0,mu0=mu2,testN=1000)

Mean of V: 0.9907313

Sd of V: 0.01529514

> v=sim\_value1(betahat=beta\_800,beta=beta0,mu0=mu2,testN=1000)

Mean of V: 0.9964156

Sd of V: 0.01200341