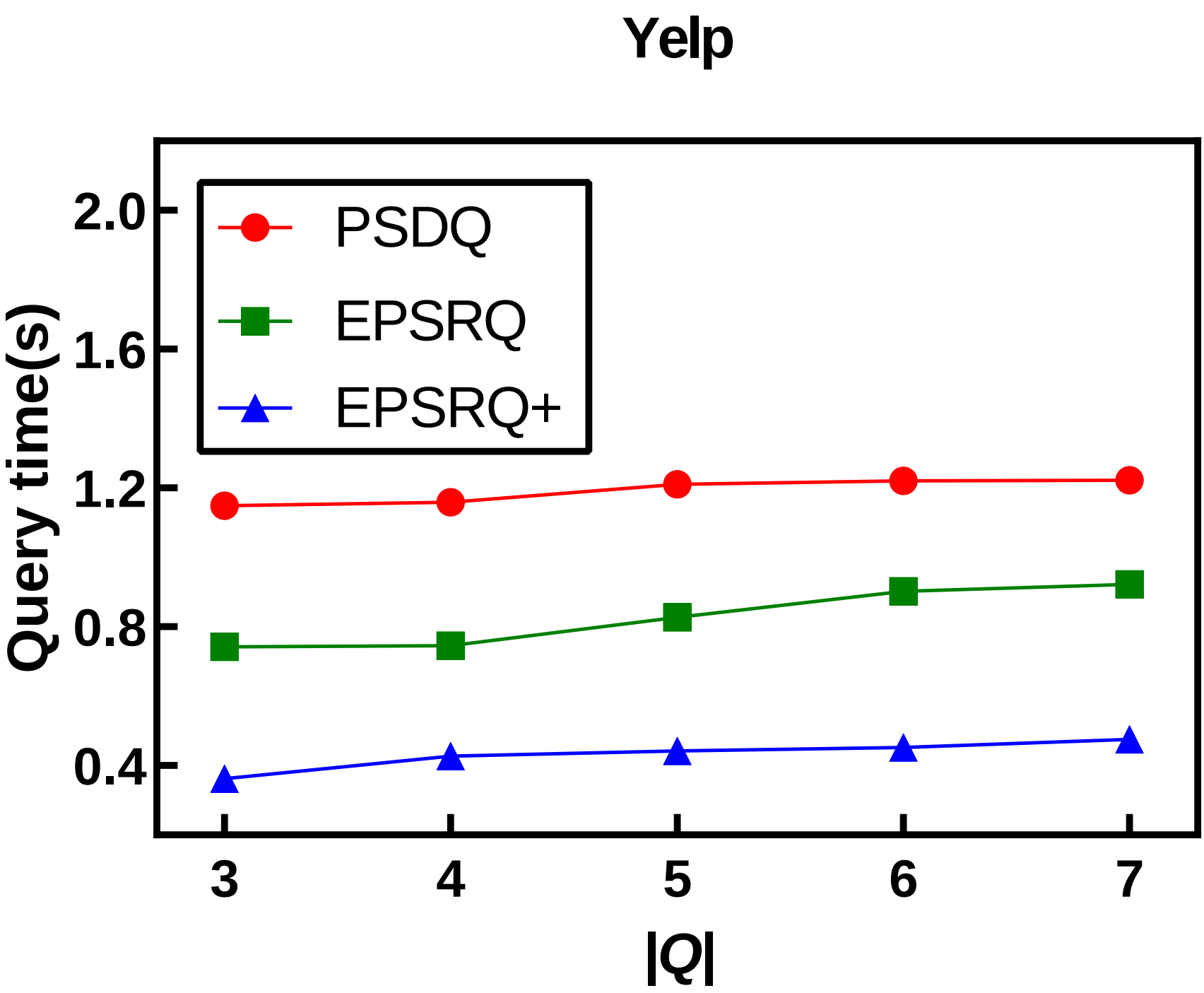
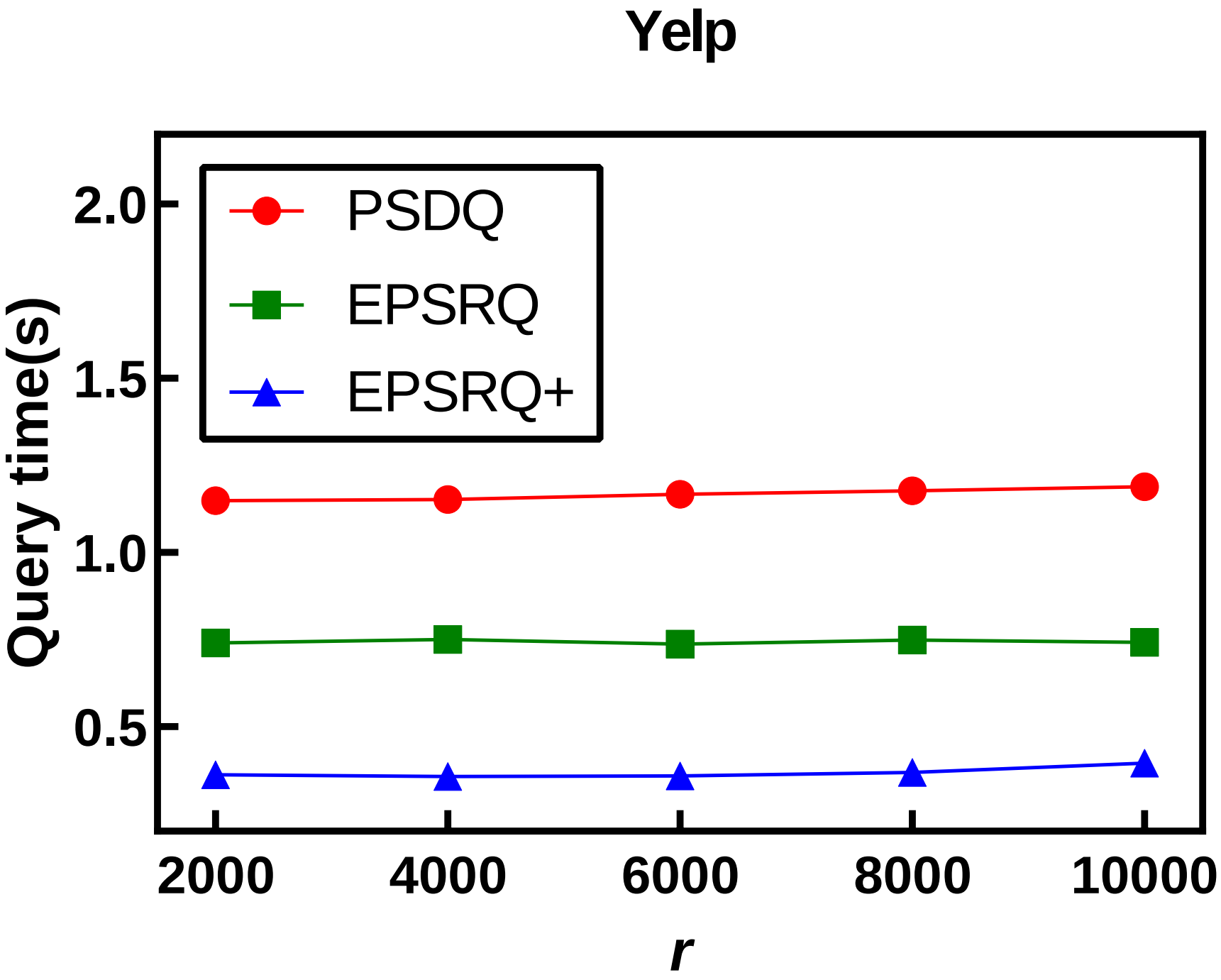
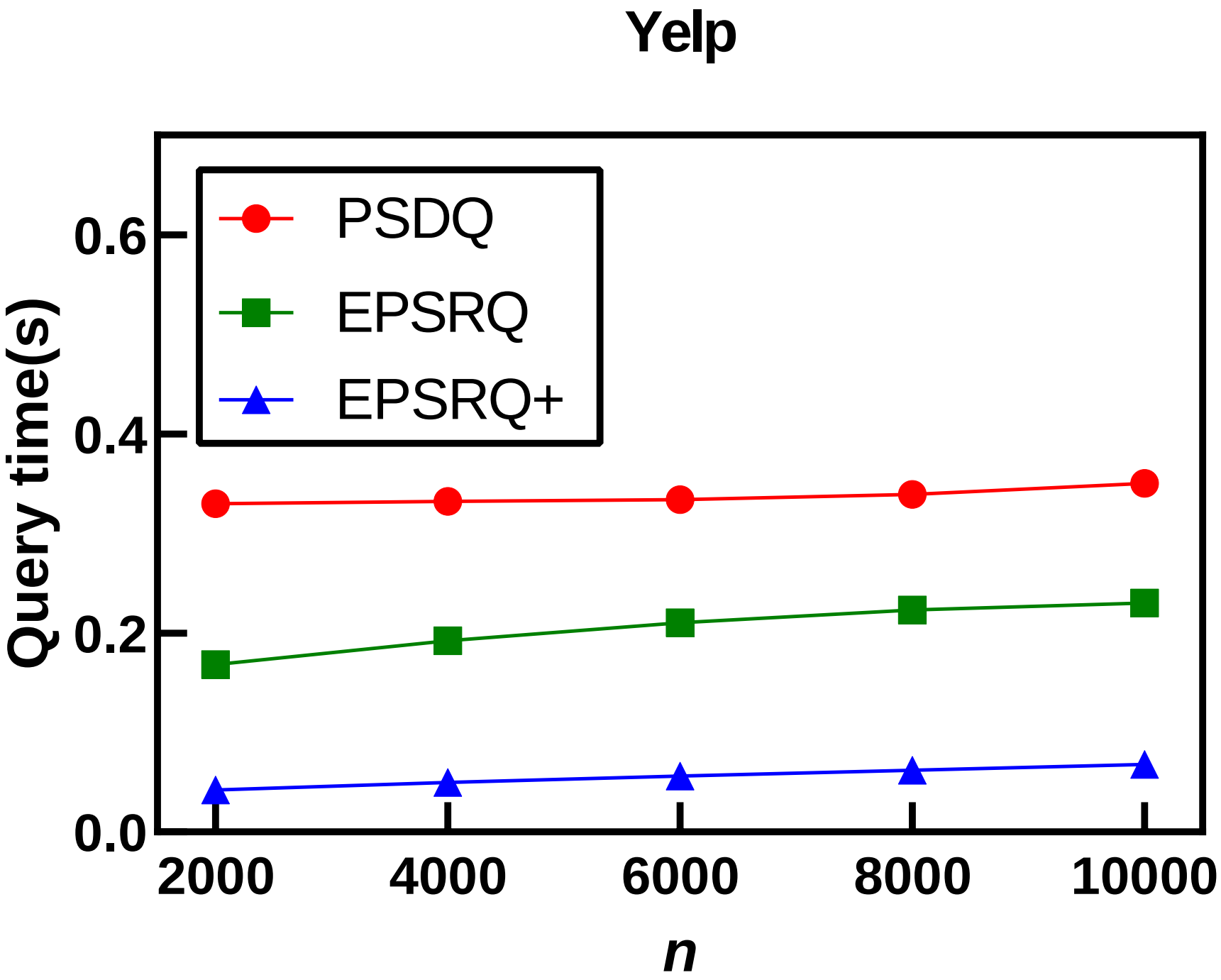
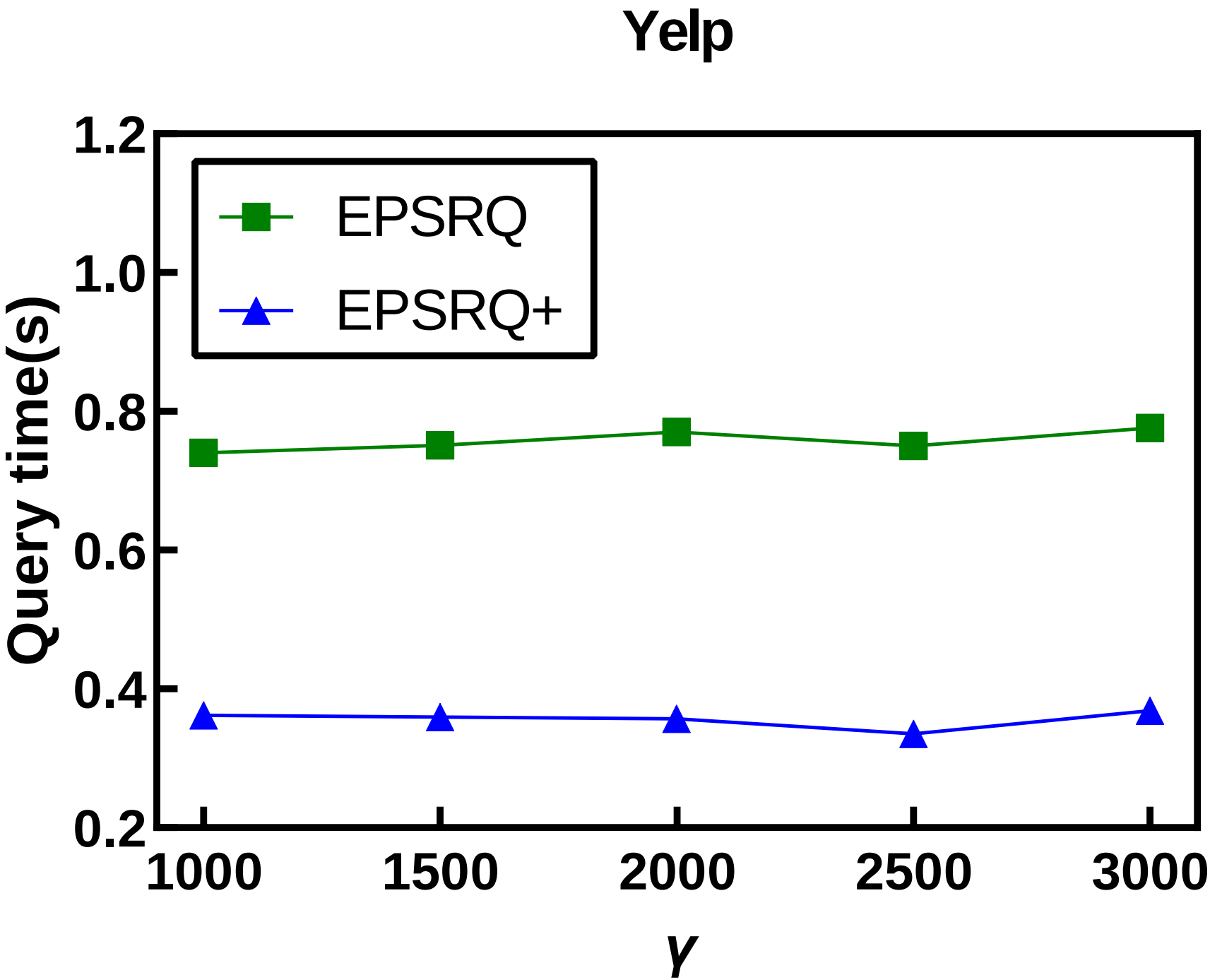
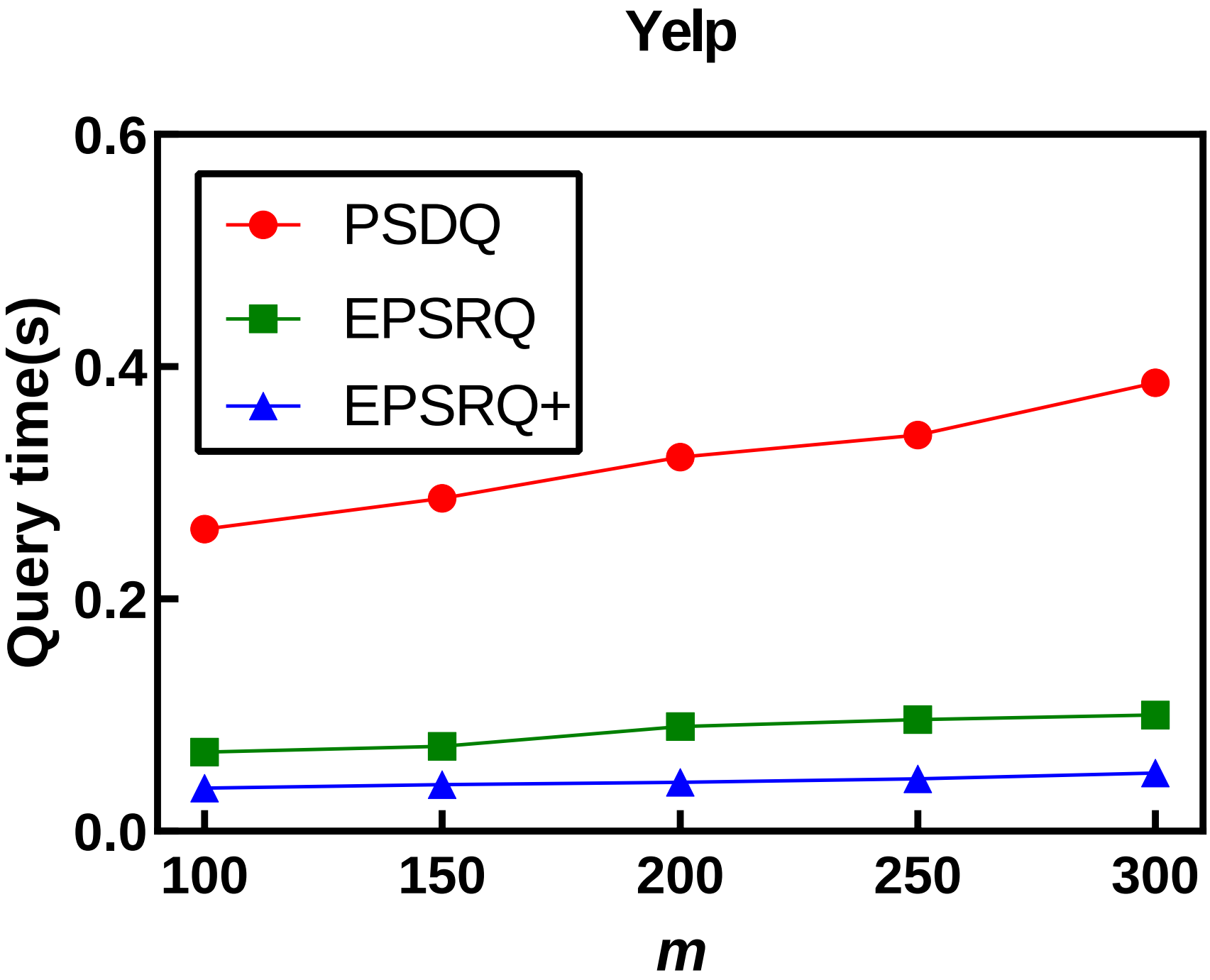
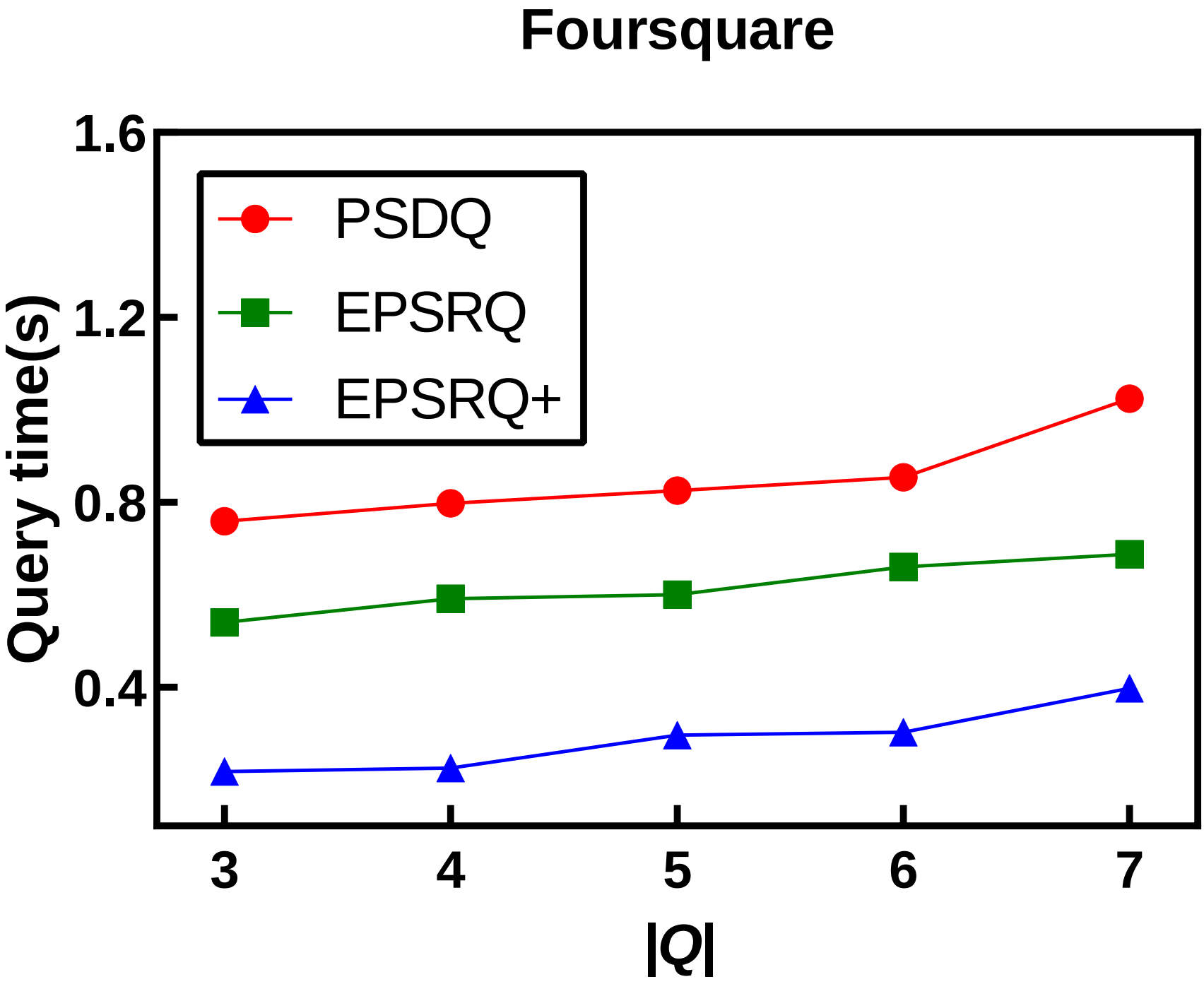

Yelp
PSDQ
EPSRQ
EPSRQ+
Query time(s)
2.0
1.6
1.2
0.8
0.4
3
4
5
6
7
|Q|

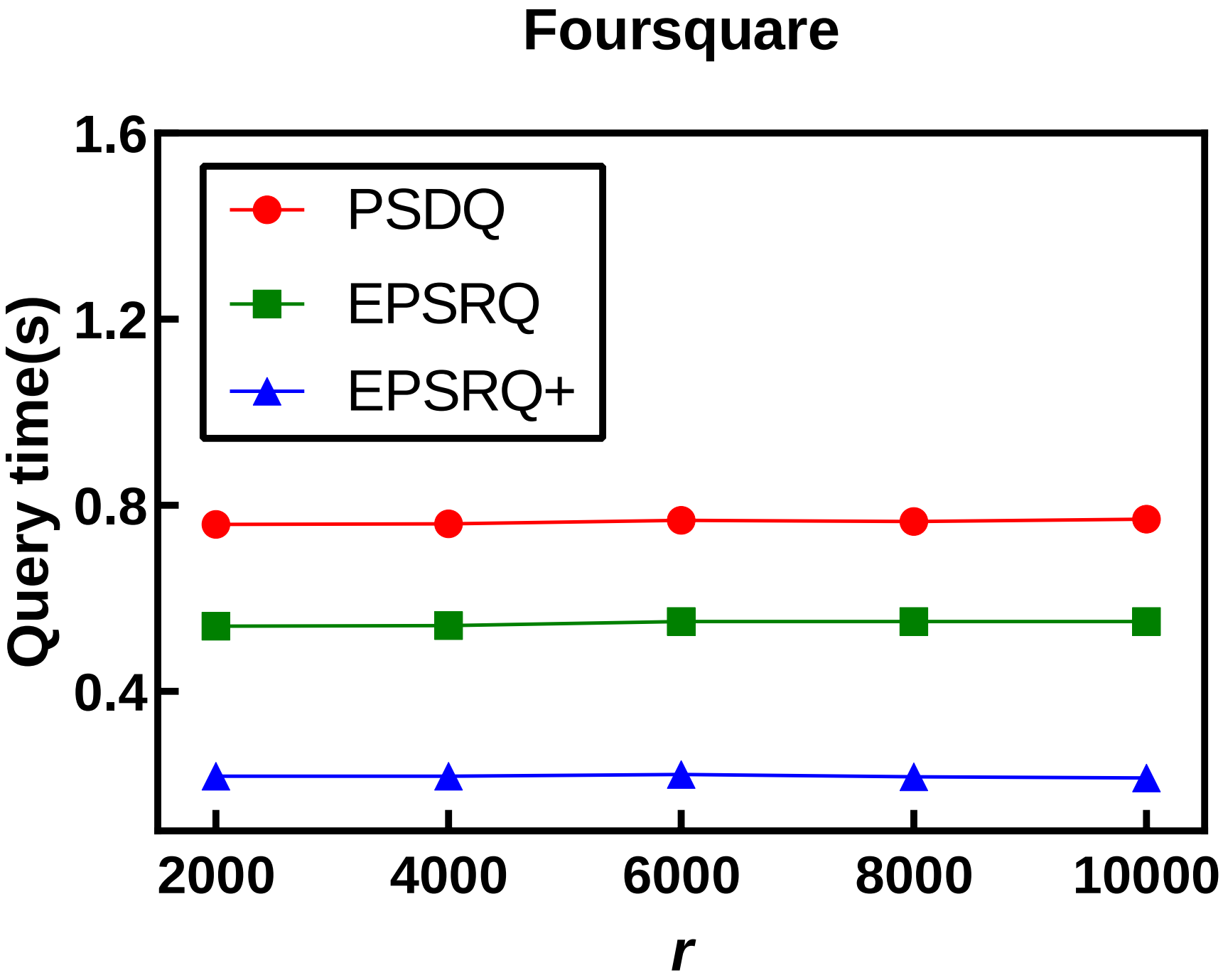

Yelp
PSDQ
EPSRQ
EPSRQ+
Query time(s)
2.0
1.5
1.0
0.5
2000
4000
6000
8000
10000
r

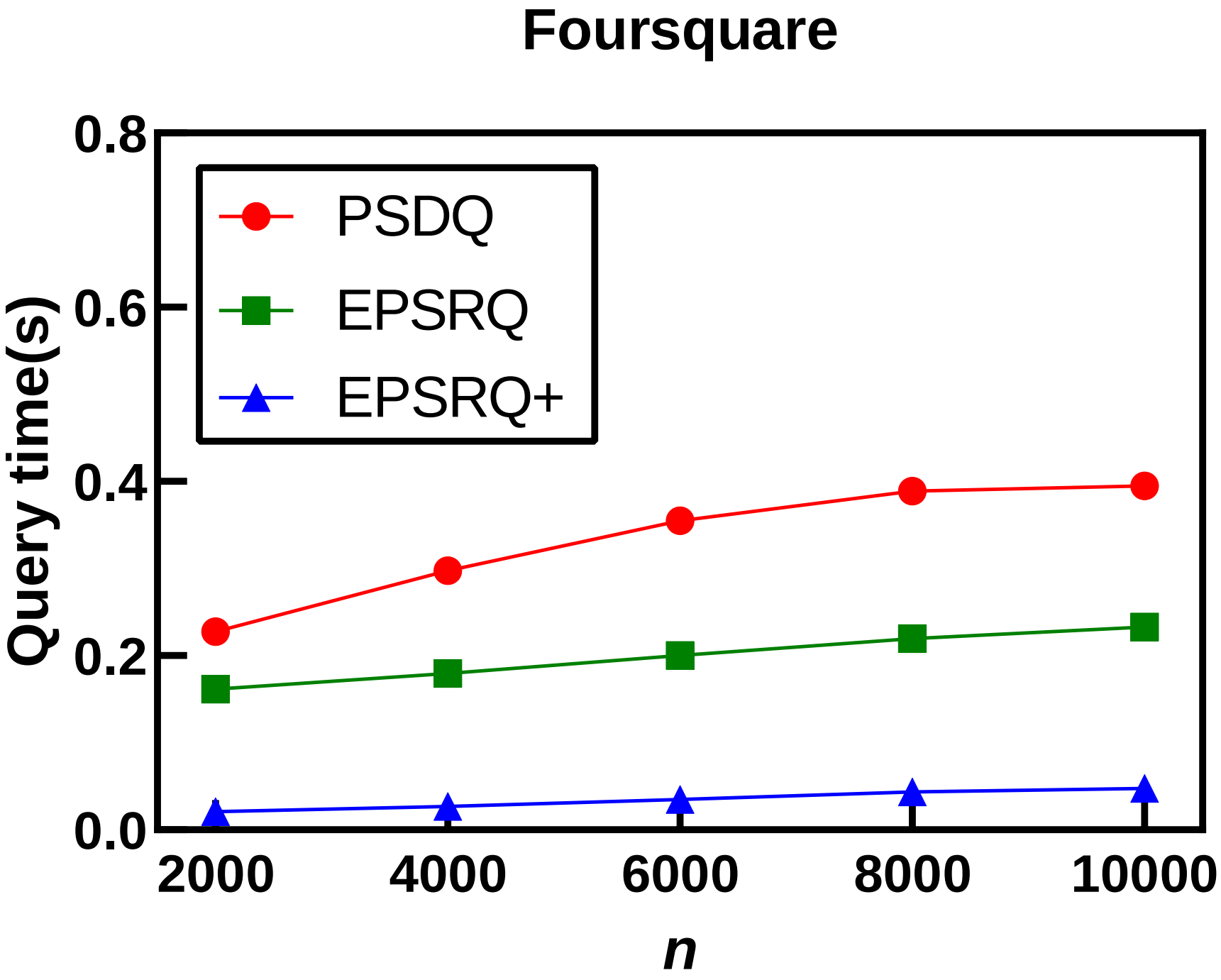

Yelp
PSDQ
EPSRQ
EPSRQ+
Query time(s)
0.0
0.2
0.4
0.6
2000
4000
6000
8000
10000
n

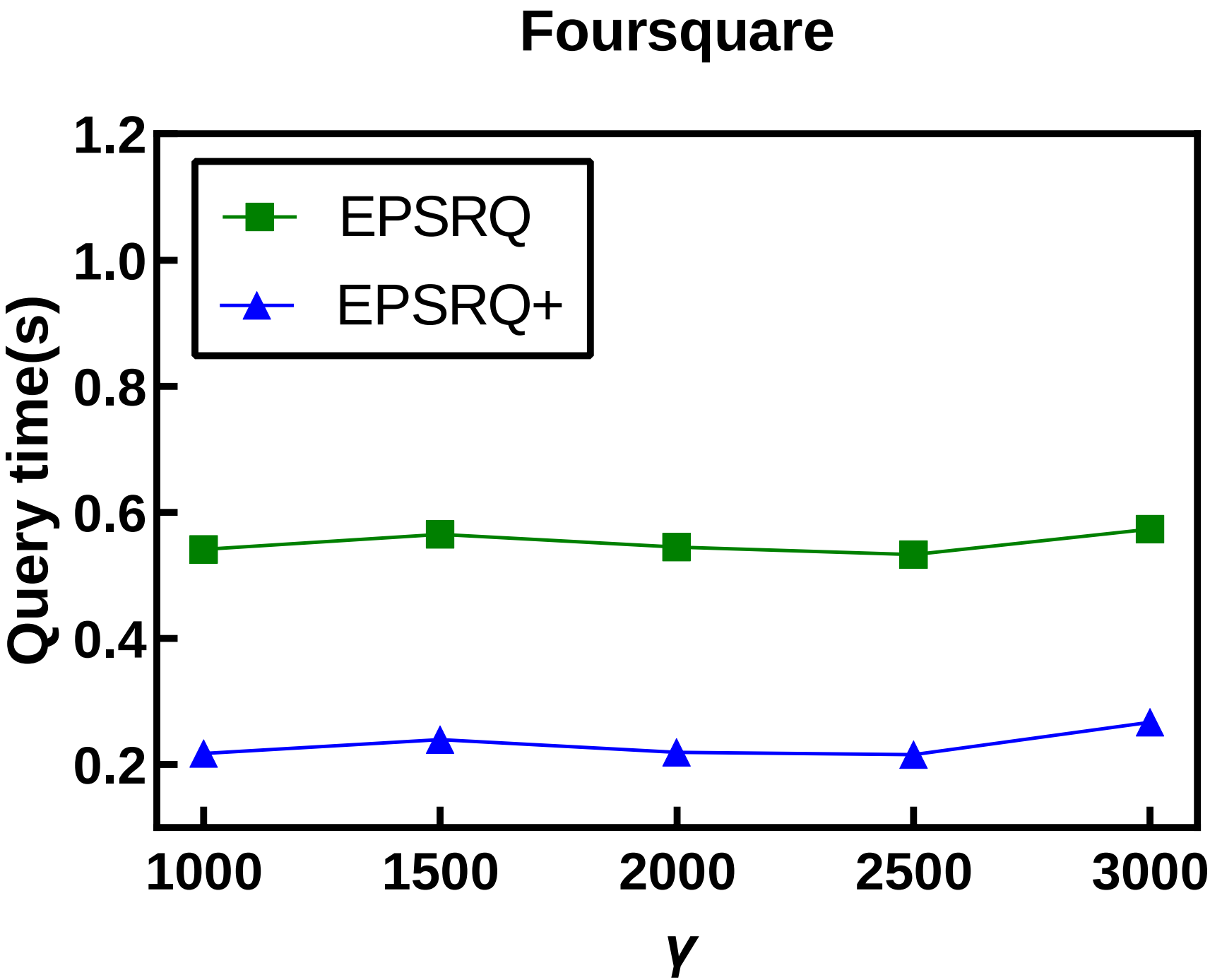

Yelp
Query time(s)
1.2
1.0
0.8
0.6
0.4
0.2
EPSRQ
EPSRQ+
1000
1500
2000
2500
3000
γ

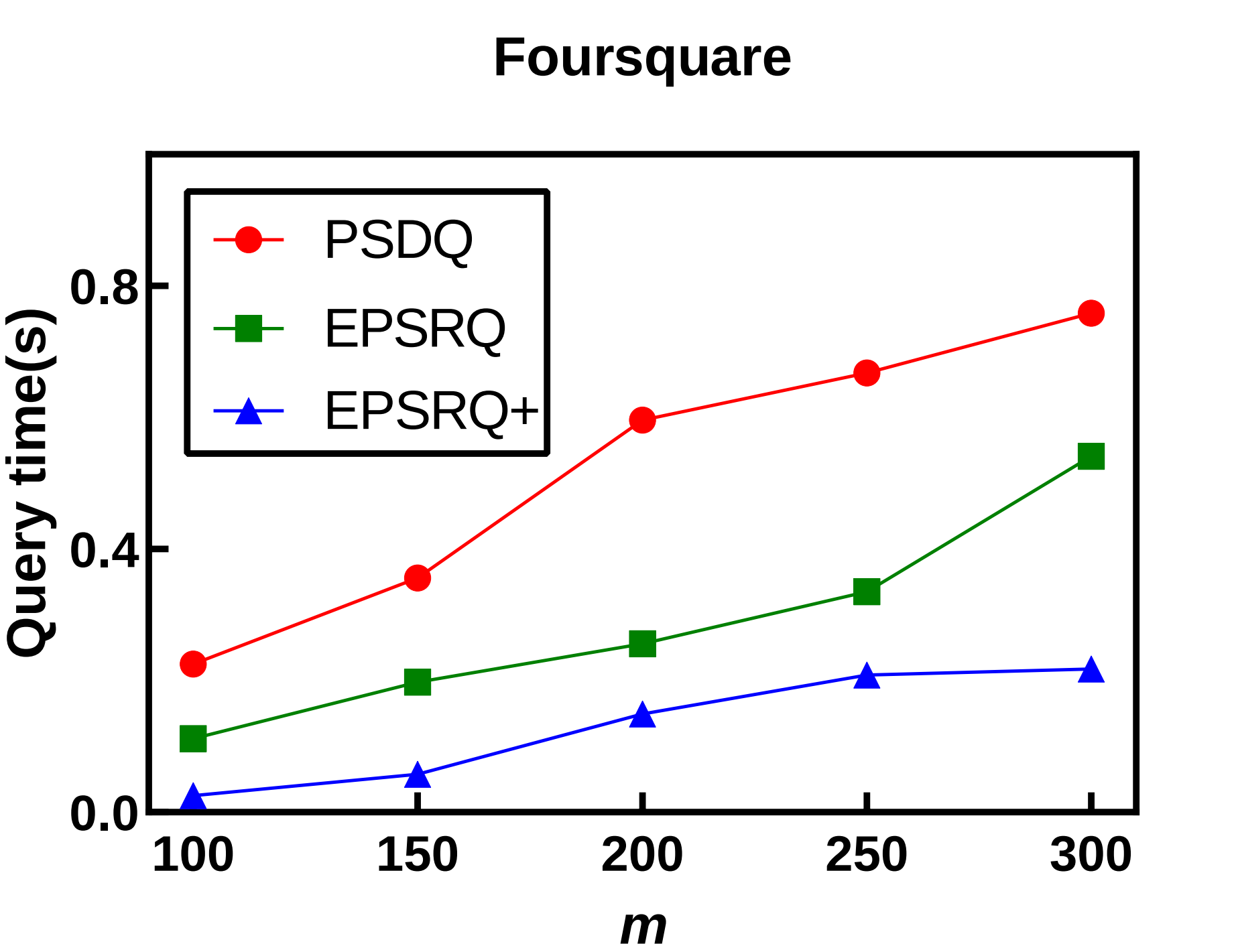

Yelp
0.6
0.4
0.2
0.0
Query time(s)
PSDQ
EPSRQ
EPSRQ+
100
150
200
250
300
m

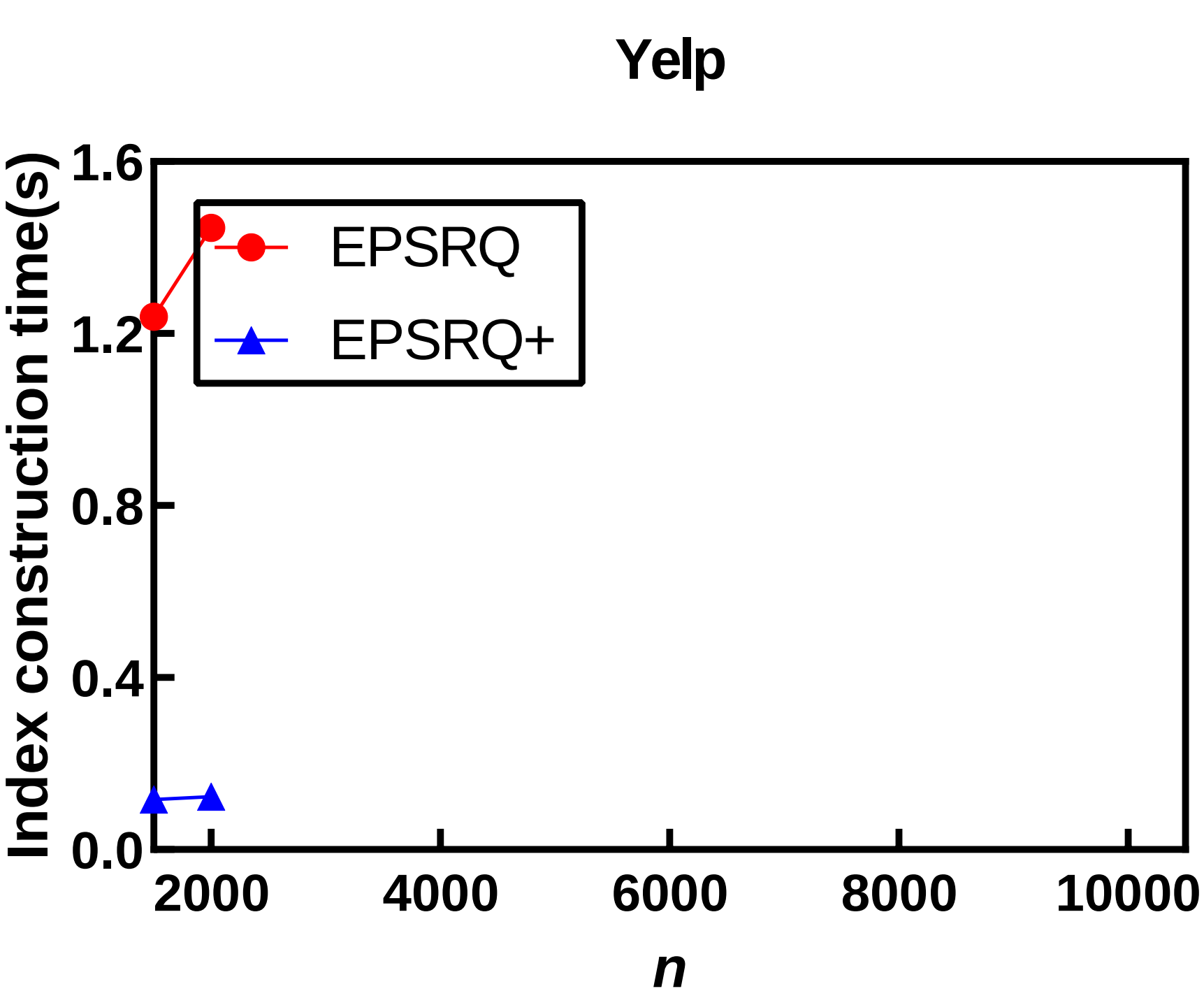

Foursquare
1.6
1.2
0.8
0.4
Query time(s)
PSDQ
EPSRQ
EPSRQ+
3
4
5
6
7
|Q|

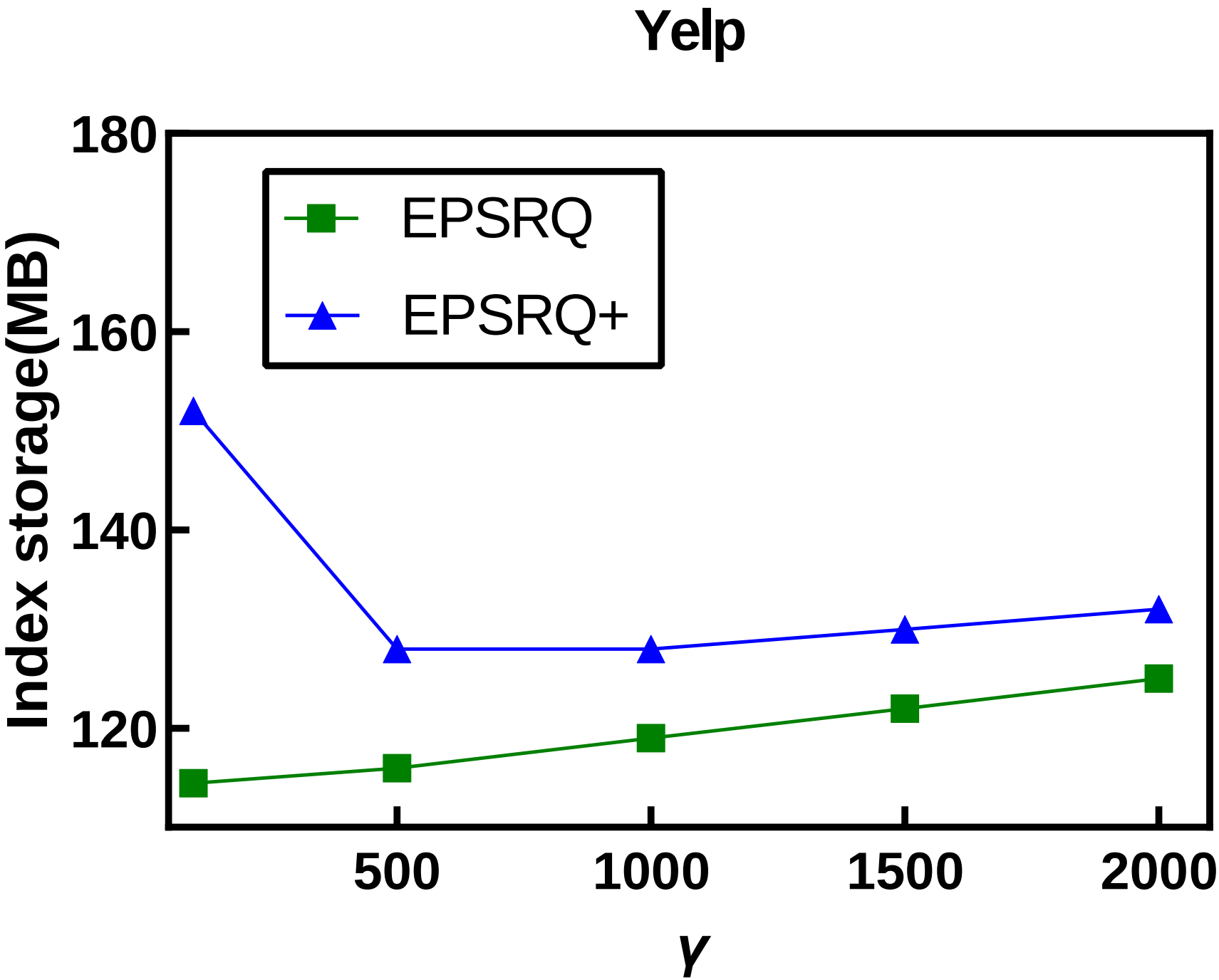

Foursquare
1.6
1.2
0.8
0.4
Query time(s)
PSDQ
EPSRQ
EPSRQ+
2000
4000
6000
8000
10000
r

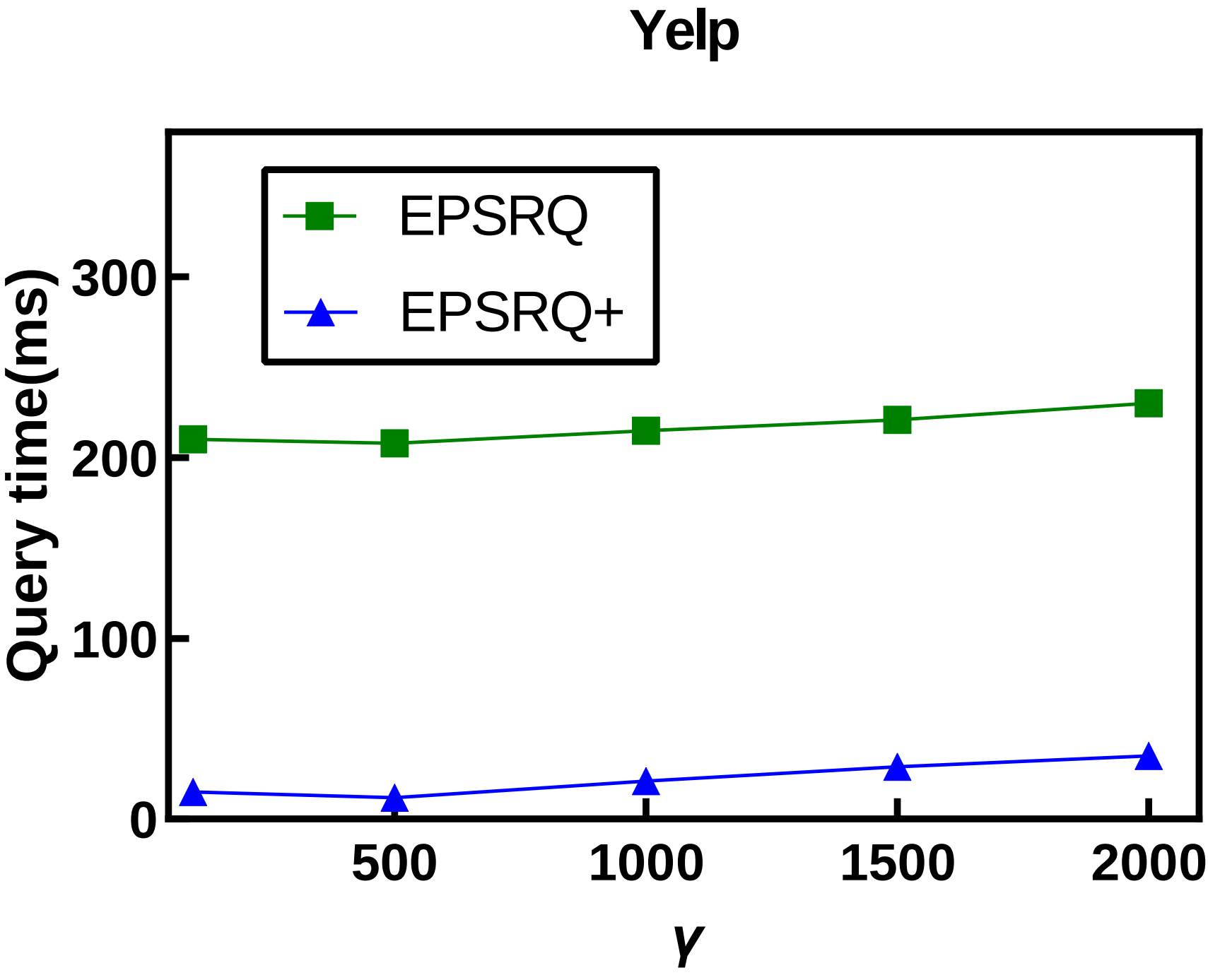

Foursquare
0.8
0.6
0.4
0.2
0.0
Query time(s)
PSDQ
EPSRQ
EPSRQ+
2000
4000
6000
8000
10000
n

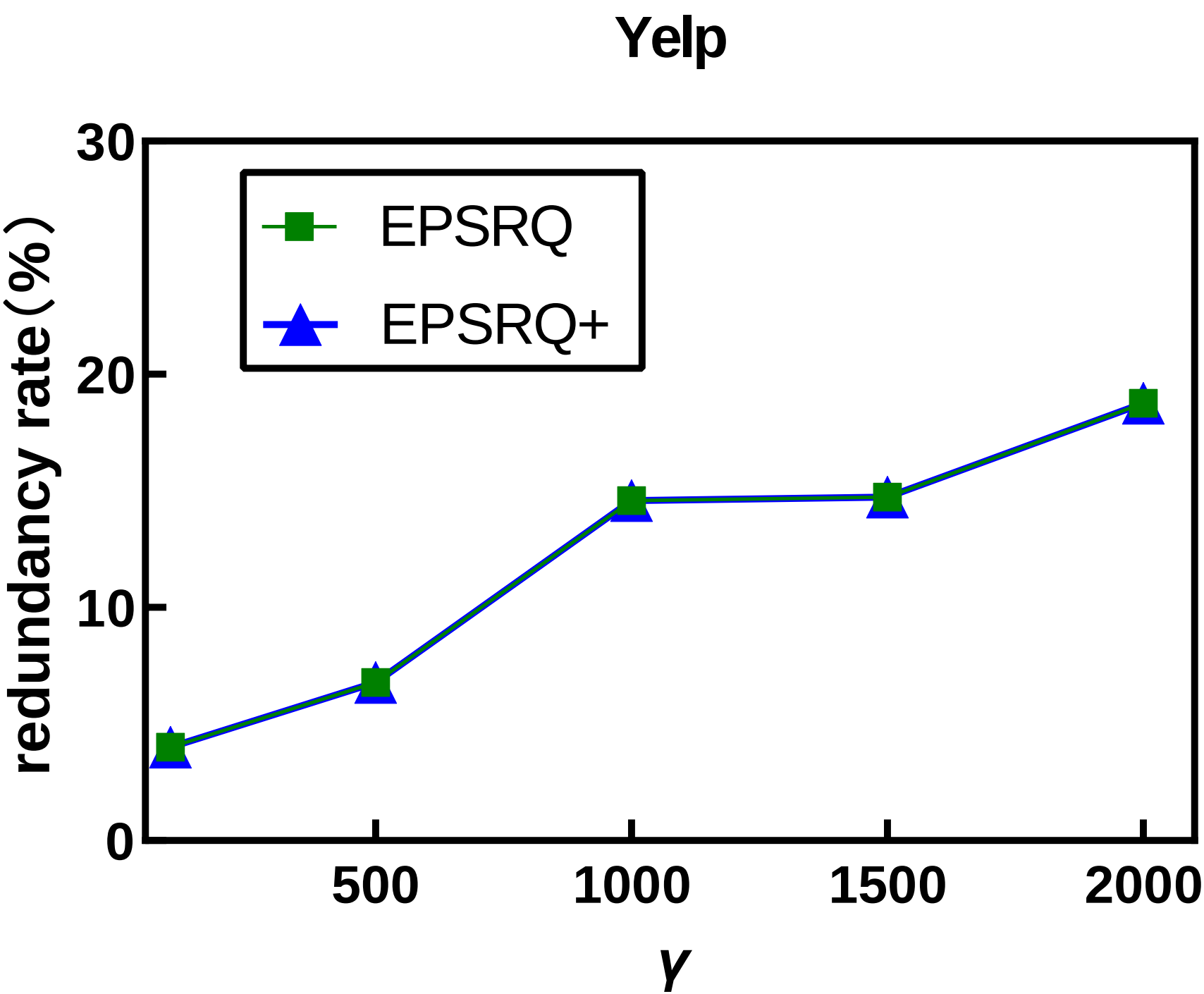

Foursquare
EPSRQ
EPSRQ+
Query time(s)
1.2
1.0
0.8
0.6
0.4
0.2
1000
1500
2000
2500
3000
γ

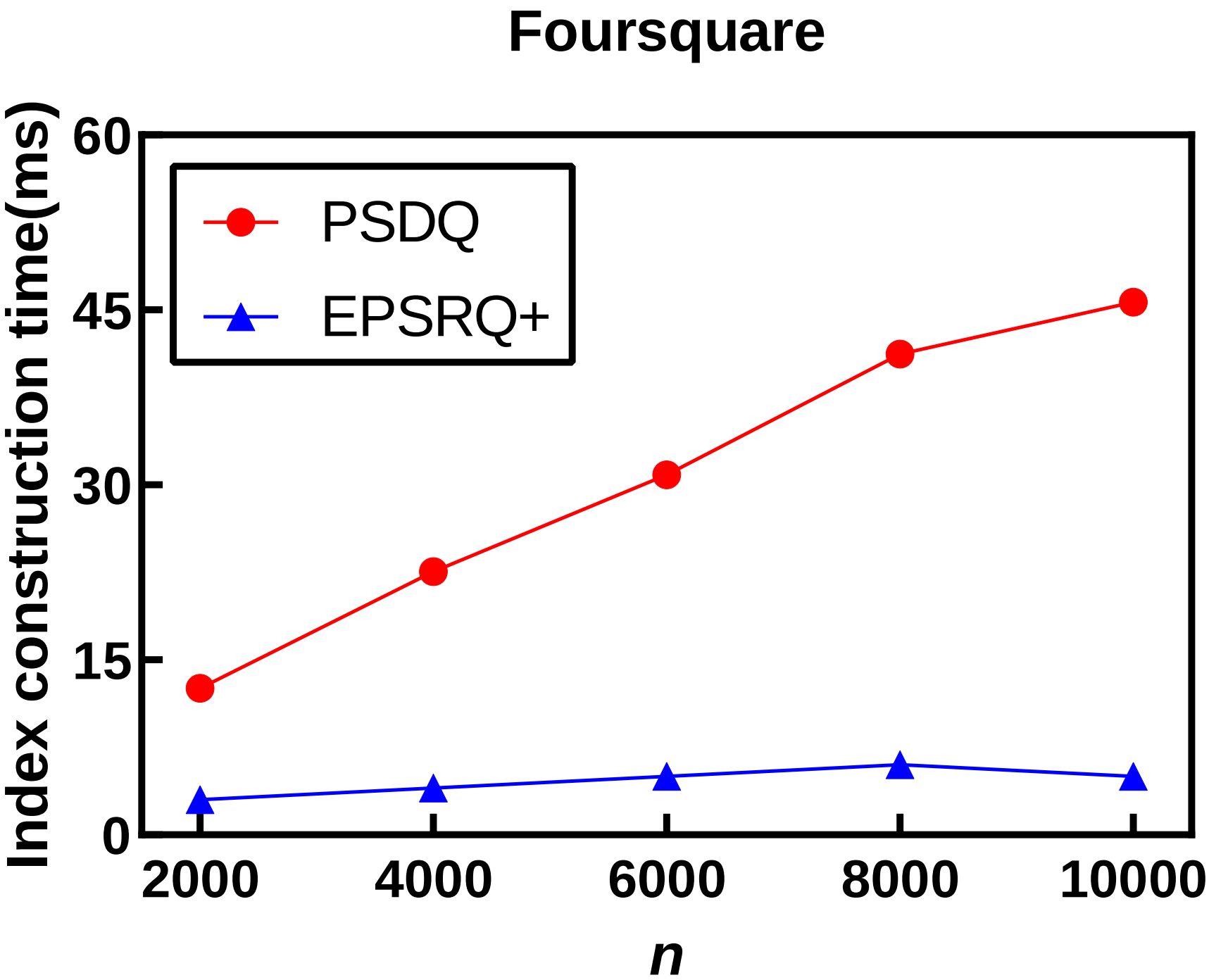

Foursquare
PSDQ
EPSRQ
EPSRQ+
Query time(s)
0.0
0.4
0.8
100
150
200
250
300
m

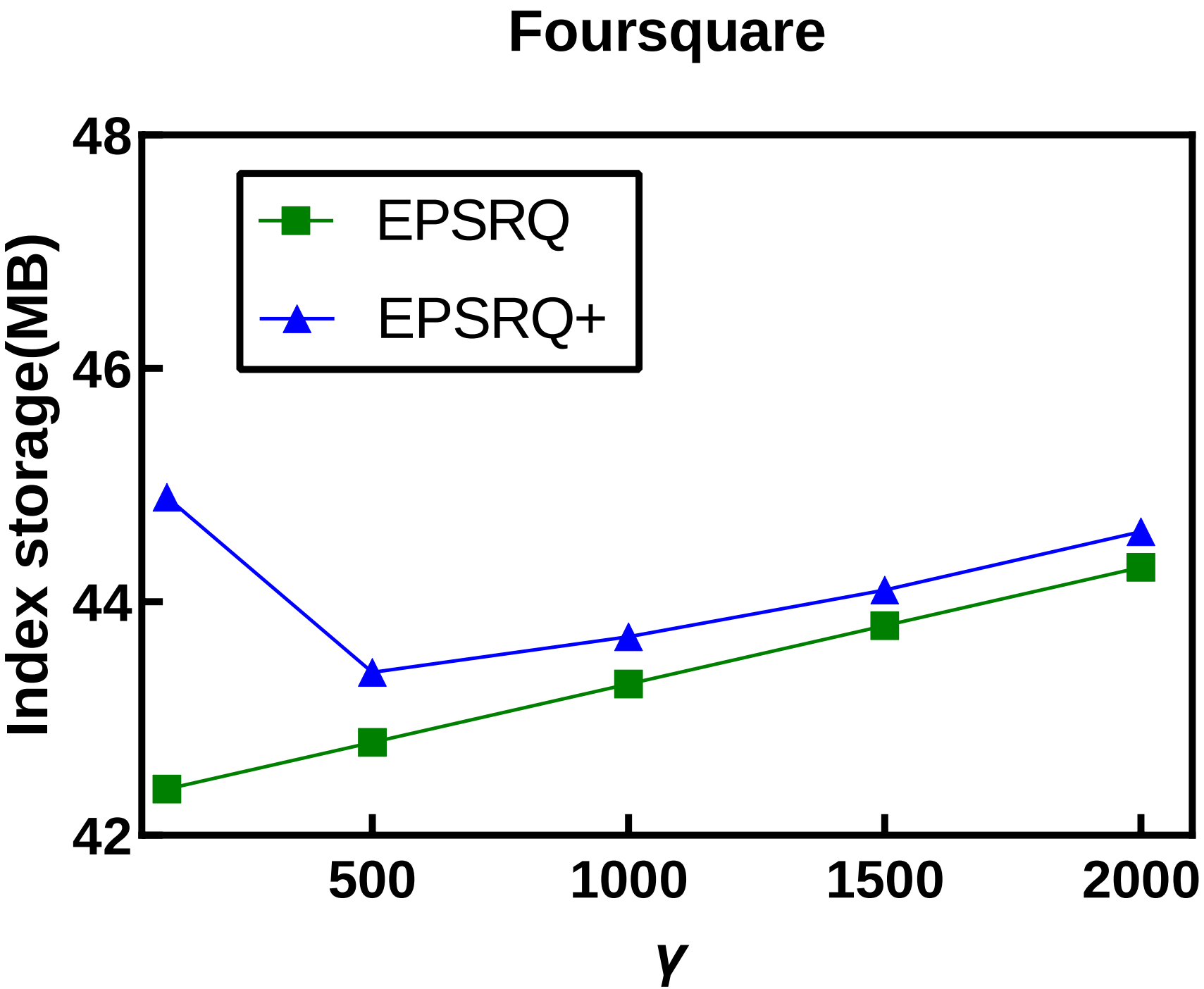

Yelp
Index construction time(s)
1.6
1.2
0.8
0.4
0.0
EPSRQ
EPSRQ+
2000
4000
6000
8000
10000
n

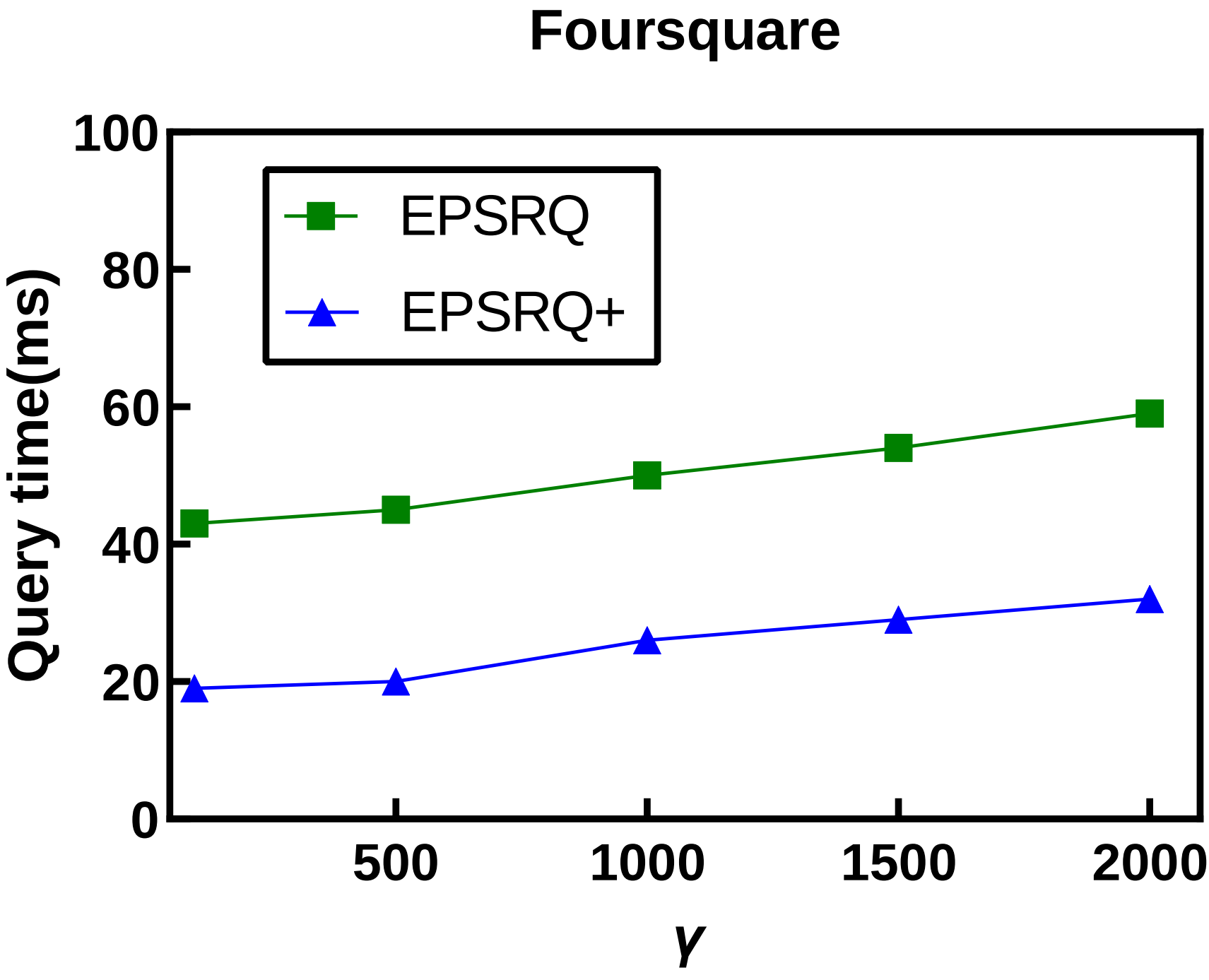

Yelp
Index storage(MB)
180
160
140
120
EPSRQ
EPSRQ+
500
1000
1500
2000
γ

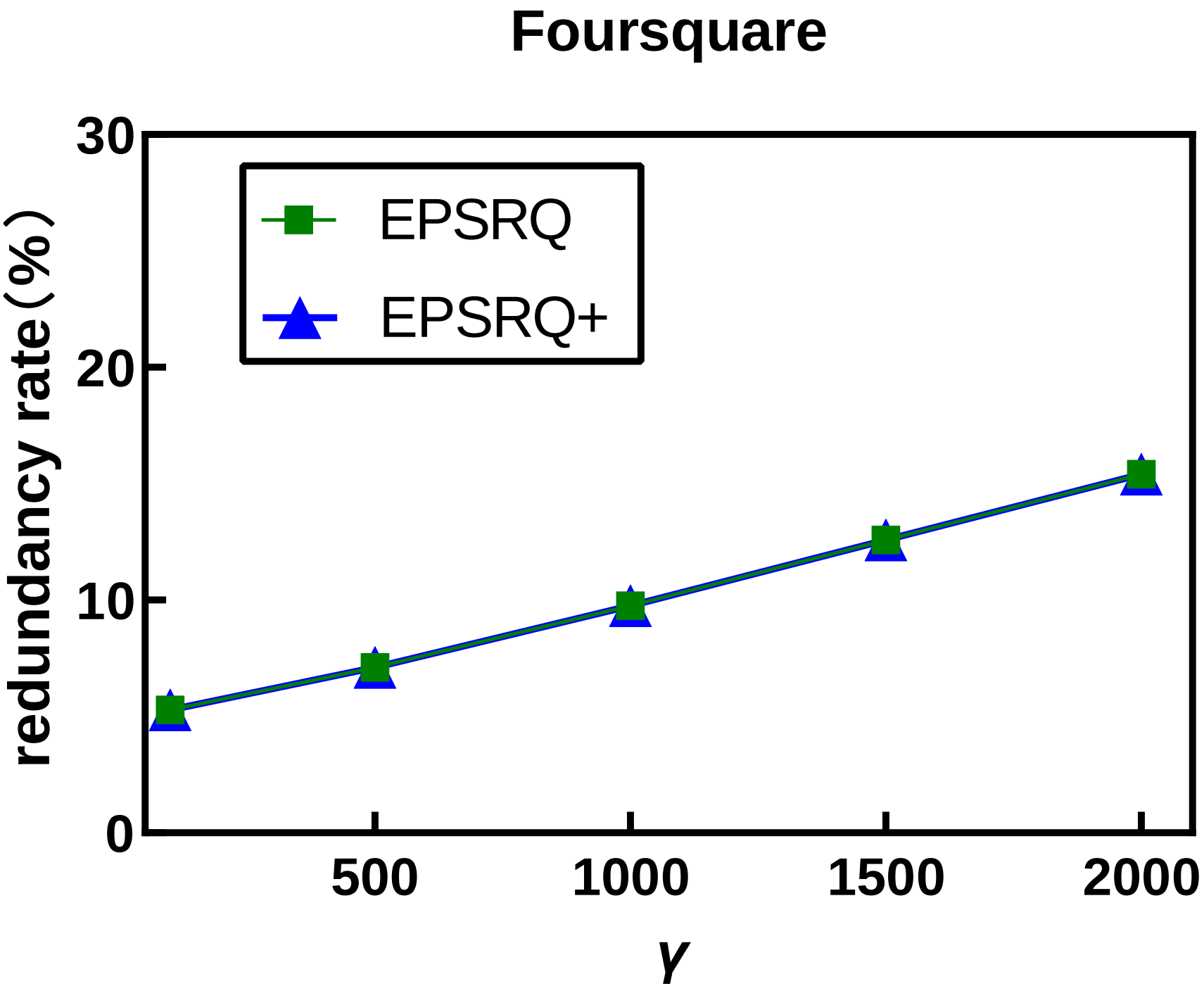

Yelp
EPSRQ
EPSRQ+
Query time(ms)
300
200
100
0
500
1000
1500
2000
γ


Yelp
30
20
10
0
redundancy rate(%)
EPSRQ
EPSRQ+
500
1000
1500
2000
γ


Foursquare
Index construction time(ms)
60
45
30
15
0
PSDQ
EPSRQ+
2000
4000
6000
8000
10000
n


Foursquare
48
46
44
42
Index storage(MB)
EPSRQ
EPSRQ+
500
1000
1500
2000
γ


Foursquare
Query time(ms)
100
80
60
40
20
0
500
1000
1500
2000
γ
EPSRQ
EPSRQ+


Foursquare
30
20
10
0
redundancy rate(%)
EPSRQ
EPSRQ+
500
1000
1500
2000
γ