## Relative error of nonconvex optimization solution for our data model max of 5 repetitions with n=100, k=10 2 6040-11 4.484e-09 2.301e-12 5.396e-09 6.844e-09 7.841e-09 2.979e-11 6.155e-09 4.96e-12 0.9 2 0.6562 2 037e-08 1 687e-08 1 769e-10 2 919e-10 1 726e-11 1 775e-08 3 953e-10 9 96e-09 n 8 3 2.484e-09 8.754e-10 0.4647 5.663e-10 7.351e-10 1.15e-09 2.491e-08 1.774e-09 0.7 4 8 43e-10 2 751e-09 0.3824 8 678e-09 1 614e-08 1.382e-09 1.322e-09 0.6 r (data rank) 5 0.3392 1.365e-08 1.885e-08 3.515e-09 1.17e-12 3.137e-09 0.5 6 0.2816 9.626e-10 2.236e-10 1.932e-11 1.919e-09 0.4 0.3 7 0.2218 6.487e-10 5.705e-10 26140-10 0.2 8 0.2266 1.828e-10 6.766e-09 0.1 9 0.2052 3.704e-09 10 0.1535

p (solution rank)

8

9

10

2

3

4