

Variable		$\epsilon = 0.5$	$\epsilon = 1$	$\epsilon = 3$	$\epsilon = 9$	LSGD
<i>Dwep</i>	Estimate	-0.0653	0.1117	0.2229	0.2596	0.2780
	95% CI	(-1.1384, 1.0078)	(-0.4138, 0.6372)	(0.0487, 0.3971)	(0.2015, 0.3177)	(0.2779, 0.2781)
<i>Temp</i>	Estimate	-0.2499	-0.3097	-0.3433	-0.3543	-0.3598
	95% CI	(-1.1474, 0.6476)	(-0.7525, 0.1331)	(-0.4904, -0.1962)	(-0.4033, -0.3053)	(-0.3599, -0.3597)
<i>Pres</i>	Estimate	-0.3959	-0.2374	-0.1335	-0.0989	-0.0817
	95% CI	(-0.9393, 0.1475)	(-0.5010, 0.0262)	(-0.2211, -0.0459)	(-0.1281, -0.0697)	(-0.0817, -0.0817)
<i>Iws</i>	Estimate	-0.4259	-0.2500	-0.1840	-0.1653	-0.1559
	95% CI	(-1.6157, 0.7639)	(-0.7128, 0.2128)	(-0.3298, -0.0382)	(-0.2139, -0.1167)	(-0.1561, -0.1557)

Table 1: Point estimation and 95% confidence interval for the **Beijing PM2.5 dataset** obtained through linear regression. Experiment setup: communication rounds  $T = 10^6$ , number of clients  $K = 8$ . The variables are defined as follows: Dwep (dew point temperature), temp (ambient temperature), pres (atmospheric pressure), and Iws (wind speed).

Variable		$\epsilon = 0.5$	$\epsilon = 1$	$\epsilon = 3$	$\epsilon = 9$	LSGD
<i>temp</i>	Estimate	0.1821	0.2287	0.2078	0.1990	0.1989
	95% CI	(-0.9354, 1.2996)	(0.046, 0.4114)	(0.1906, 0.2250)	(0.1931, 0.2049)	(0.1988, 0.1991)
<i>hum</i>	Estimate	0.2967	-0.0571	-0.0926	-0.0935	-0.0942
	95% CI	(-0.6908, 1.2843)	(-0.1981, 0.084)	(-0.1103, -0.0749)	(-0.0990, -0.0879)	(-0.0943, -0.0941)
<i>wind</i>	Estimate	0.1861	-0.0118	-0.0431	-0.0451	-0.0462
	95% CI	(-1.3569, 1.729)	(-0.2373, 0.2136)	(-0.0719, -0.0143)	(-0.0535, -0.0368)	(-0.0461, -0.0461)
<i>S1</i>	Estimate	-0.3055	-0.1926	-0.1804	-0.1803	-0.1798
	95% CI	(-0.7772, 0.1661)	(-0.2573, -0.128)	(-0.1871, -0.1737)	(-0.1825, -0.1782)	(-0.1798, -0.1798)
<i>S2</i>	Estimate	-0.2489	-0.1857	-0.1675	-0.1665	-0.1658
	95% CI	(-0.4680, -0.0298)	(-0.2243, -0.1471)	(-0.1623, -0.0143)	(-0.1680, -0.165)	(-0.1657, -0.1657)
<i>S3</i>	Estimate	0.064	0.0391	0.0257	0.0197	0.0183
	95% CI	(-0.3446, 0.4727)	(-0.0242, 0.1024)	(0.0171, 0.0343)	(0.0174, 0.0219)	(0.0185, 0.0185)
<i>hsin</i>	Estimate	0.0896	0.029	0.0126	0.0081	0.0071
	95% CI	(-0.4602, 0.6395)	(-0.0621, 0.1201)	(0.0008, 0.0244)	(0.0049, 0.0113)	(0.0072, 0.0072)
<i>hcos</i>	Estimate	0.0845	0.0597	0.0426	0.0347	0.0331
	95% CI	(-0.1596, 0.3285)	(0.0199, 0.0995)	(0.0346, 0.0505)	(0.0325, 0.037)	(0.0334, 0.0334)

Table 2: Point estimation and 95% confidence interval for the **Bike Sharing dataset** obtained through median regression. Experiment setup: communication rounds  $T = 10^6$ , number of clients  $K = 8$ . The variables are defined as follows: temp (ambient temperature), hum (humidity percentage), wind (wind speed), S1, S2, and S3 (dummy variables representing the four-season classification), hsin and hcos (sine and cosine transformations of the hour).

Variable		$\epsilon = 0.5$	$\epsilon = 1$	$\epsilon = 3$	$\epsilon = 9$	LSGD
$B$	Estimate	6.9119	7.6856	8.5552	8.8726	9.0289
	95% CI	(1.4558, 12.3681)	(5.3043, 10.0669)	(7.8320, 9.2785)	(8.6349, 9.1103)	(8.7386, 9.3193)
$G$	Estimate	4.1139	1.0448	-0.5361	-0.9606	-1.1466
	95% CI	(-1.5781, 9.8059)	(-1.8256, 3.9152)	(-1.4525, 0.3804)	(-1.2891, -0.6321)	(-1.5332, -0.7600)
$R$	Estimate	-15.1983	-12.2902	-11.5208	-11.4394	-11.4303
	95% CI	(-21.0945, -9.3020)	(-13.9513, -10.6291)	(-11.9551, -11.0866)	(-11.6080, -11.2707)	(-11.5014, -11.3592)

Table 3: Point estimation and 95% confidence interval for the **Skin Segmentation dataset** obtained through logistic regression. Experiment setup: communication rounds  $T = 10^6$ , number of clients  $K = 10$ . The variables are defined as follows: R (red channel), G (green channel), and B (blue channel).