$X = (X_1, \ldots, X_n), Y = (Y_1, \ldots, Y_n), Z = (X_1, \ldots, X_n, Y_1, \ldots, Y_n).$

$$L_1(Z) \quad = \quad \sum_{i,j=1}^{n} \ln(1 + |X_i - Y_j|), \tag{1}$$

$$L_2(Z) \quad = \quad \sum_{i,j=1}^{n} \ln(1 + |X_i - Y_j|^2), \tag{2}$$

$$LL_{distribution} \quad = \quad \text{maximum log likelyhood permutation criterion based on the distribution} \tag{3}$$

Таблица 1: Мощность тестов при размерах выборок $n = 50$,
10000 итераций, 1600 перестановок в каждой итерации

F_2	L_1	L_2	LL_{norm}	LL_{cauchy}	$LL_{laplace}$	LL_{levy}	wilcox.test	ks.test
La(0, 1)	5.5	5.6	5	5	5.2	5	5.5	4.1
La(0.25, 1)	18	17.8	9.3	18.8	17.2	5.1	19.1	17.2
La(0.5, 1)	54.6	53.6	23.7	56.8	53.6	5.4	55.3	54.1
La(0.75, 1)	87	86.7	51.3	87.8	86.6	5.8	87.3	86.3
La(1, 1)	98.3	98.2	78.8	98.3	98.2	5.8	98	98.1
La(0, 1.5)	28.1	28	44.3	24.8	41.8	10	5.7	9.4
La(0, 2)	72.1	72.8	87.5	64.2	87.2	17	5.9	22.8
La(0, 2.5)	94	94.5	98.4	89.4	98.6	23.6	6.3	41.9
La(0, 3)	99.1	99.2	99.8	97.3	99.9	28.6	6.5	61.4
La(0.25, 1.25)	22.2	21.8	21.1	22.1	26.1	6.4	16.3	16.5
La(0.5, 1.5)	61	60.6	56	59.6	69.6	8.8	39.6	45.7
La(0.75, 1.75)	88.2	88.3	83.9	86.6	92.9	11.1	61.9	73.4
La(1, 2)	97.7	97.8	95.6	96.6	98.9	13.5	78.2	89.8
La(0.25, 1.5)	37.8	37.7	47.3	34.4	49.9	9.5	14.2	19.2
La(0.5, 2)	84.4	84.8	90.3	80	93	15.3	30	51.5
La(0.75, 2.5)	98.3	98.5	99	96.6	99.7	20.8	43.9	77.3
La(1, 3)	99.9	99.9	99.9	99.6	100	25.7	54.5	91.6