

The data set (and description) can be downloaded here:

<http://lib.stat.cmu.edu/datasets/kidney>

Description:

From: McGilchrist and Aisbett, Biometrics 47, 461-66, 1991
Data on the recurrence times to infection, at the point of insertion of the catheter, for kidney patients using portable dialysis equipment. Catheters may be removed for reasons other than infection, in which case the observation is censored. Each patient has exactly 2 observations.

The data set has been used by several authors to illustrate random effects ("frailty") models for survival data. However, any non-zero estimate of the random effect is almost entirely due to one outlier, subject 21.

Variables: patient, time, status, age,
sex (1=male, 2=female),
disease type (0=Glomerulo Nephritis, 1=Acute Nephritis,
2=Polycystic Kidney Disease, 3=Other)
author's estimate of the frailty

Descriptive statistics:

Dataset= kidney : n= 76 , d= 5

Class1: n= 20

Covariance matrix:

	[,1]	[,2]	[,3]	[,4]	[,5]
[1,]	15896.4316	5.6105	172.7895	11.1579	-49.0453
[2,]	5.6105	0.0947	-1.7368	0.0000	0.0168
[3,]	172.7895	-1.7368	237.8421	-13.3158	-2.2684
[4,]	11.1579	0.0000	-13.3158	1.5263	-0.0053
[5,]	-49.0453	0.0168	-2.2684	-0.0053	0.6746

Correlation matrix:

	[,1]	[,2]	[,3]	[,4]	[,5]
[1,]	1.0000	0.1446	0.0889	0.0716	-0.4736
[2,]	0.1446	1.0000	-0.3659	0.0000	0.0666
[3,]	0.0889	-0.3659	1.0000	-0.6989	-0.1791
[4,]	0.0716	0.0000	-0.6989	1.0000	-0.0052
[5,]	-0.4736	0.0666	-0.1791	-0.0052	1.0000

Median: 19.2844 0.9115 44.8794 1.2151 1.4107

Mean: 59.3 0.9 43.5 1.5 1.31

MCD-estimated:

MDC-0.975-Mean: 17.3574 0.9999 38.9285 1.4998 1.5643

MDC-0.750-Mean: 17.3574 0.9999 38.9285 1.4998 1.5643

MDC-0.500-Mean: 17.3574 0.9999 38.9285 1.4998 1.5643

Class2: n= 56

Covariance matrix:

	[,1]	[,2]	[,3]	[,4]	[,5]
[1,]	16994.8455	19.0000	-377.7318	29.9818	-33.3809
[2,]	19.0000	0.2078	0.1143	0.0026	0.0732
[3,]	-377.7318	0.1143	214.1088	-6.3740	1.3329
[4,]	29.9818	0.0026	-6.3740	1.4130	-0.0083
[5,]	-33.3809	0.0732	1.3329	-0.0083	0.4068

