

UNIVERSITY OF GRANADA

**Dept. of Computer Science and Artificial
Intelligence**

C.P. 18071, Granada, Spain

**Complementary document to the
paper:**

**J. Luengo, S. García, F. Herrera,
On the choice of an imputation method for missing
values. A study of three groups of classification
methods: rule induction learning, lazy learning and
approximate methods.**

**Complementary Document 2: Tables with the Wilcoxon
Signed Rank test results summarized for each classification
method used in the paper**

**Julián Luengo
Salvador García
Francisco Herrera**

In this document we present the summary of the Wilcoxon Signed Rank test results obtained for each classification method. These are the complete wilcoxon tables for the study performed in the contribution entitled:

- Julián Luengo, Salvador García and Francisco Herrera (2009). A study on the use of missing values for three groups of classification methods: interval rule learning, lazy learning and approximative methods.

The procedure followed in order to obtain the tables follows:

1. We create a $n \times n$ table for each classification method. In each cell, the outcome of the Wilcoxon signed rank test is showed.
2. In the aforementioned tables, if the p -value obtained by the Wilcoxon tests for the considered classification for a pair of imputation methods is higher than our α level, formerly 0.1, then we establish that there is a *tie* in the comparison (e.g. no significant difference was found), represented by a D in the cell.
3. If the p -value obtained by the Wilcoxon tests is lower than our α level, formerly 0.1, then we establish that there is a *win* (represented by a W) or a *loss* (represented by a L) in the comparison. If the method presented in the **row** has better ranking than the method presented in the column in the Wilcoxon test then is a *win*, otherwise is a *loss*.

Then for each table we have attached three extra columns.

- The column “Ties+Wins” represents the amount of D and W present in the row. That is, the number of times that the imputation method performs better or equal than the rest for the classifier.
- The column “Wins” represents the amount of W present in the row. That is, the number of times that the imputation method performs better than the rest for the classifier.
- The column “RANKING” shows the average ranking derived from the two previous columns. The higher “Ties+Wins” has the method, the better. If there is a draw for “Ties+Wins”, then the “Wins” are used in order to break the tie. Again, the higher “Wins” has the method, the better. If there also exists a tie in the “Wins”, then an average ranking is established for all the tied methods m_i to m_j , given by:

$$RANKING = \frac{lRank(m_i, m_i + 1, \dots, m_j) + hRank(m_i, m_{i+1}, \dots, m_j)}{2}$$

where $lRank()$ represents the lower ranking that all the methods can obtain (e.g. the last assigned ranking plus 1) and $hRank()$ represents the highest possible rank for all the methods, that is

$$hRank(m_i, m_{i+1}, \dots, m_j) = lRank(m_i, m_{i+1}, \dots, m_j) + |\{m_i, \dots, m_j\}|$$

The tables follow in the subsequent pages.

RBFN

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		L	D	D	D	D	D	D	D	W	D	D	D	D	12	1	9
EC	W		W	W	D	W	D	D	W	W	W	W	W	W	13	10	1
KNNI	D	L		W	D	W	D	D	D	W	D	D	D	D	12	3	5
WKNNI	D	L	L		D	D	L	D	D	W	L	D	D	D	9	1	13
KMI	D	D	D	D		D	D	D	D	W	D	D	D	D	13	1	3.5
FKMI	D	L	L	D	D		D	D	D	W	D	D	D	D	11	1	12
SVM	D	D	D	W	D	D		D	D	W	D	D	D	D	13	2	2
EM	D	D	D	D	D	D	D		D	W	D	D	D	D	13	1	3.5
SVDI	D	L	D	D	D	D	D	D		W	D	D	D	D	12	1	9
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	L	0	0	14
LLSI	D	L	D	W	D	D	D	D	D	W		D	D	D	12	2	6
MC	D	L	D	D	D	D	D	D	D	W	D		D	D	12	1	9
CMC	D	L	D	D	D	D	D	D	D	W	D	D		D	12	1	9
DNI	D	L	D	D	D	D	D	D	D	W	D	D	D		12	1	9

RBFND

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	D	13	1	6.5
EC	D		D	D	D	D	W	D	D	W	D	D	W	W	13	4	1
KNNI	D	D		D	D	D	D	D	D	W	D	D	D	D	13	1	6.5
WKNNI	D	D	D		D	D	D	D	D	W	D	D	D	D	13	1	6.5
KMI	D	D	D	D		D	D	D	D	W	D	D	W	D	13	2	2
FKMI	D	D	D	D	D		D	D	D	W	D	D	D	D	13	1	6.5
SVM	D	L	D	D	D	D		D	D	W	D	D	D	D	12	1	11.5
EM	D	D	D	D	D	D	D		D	W	D	D	D	D	13	1	6.5
SVDI	D	D	D	D	D	D	D	D		W	D	D	D	D	13	1	6.5
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	L	0	0	14
LLSI	D	D	D	D	D	D	D	D	D	W		D	D	D	13	1	6.5
MC	D	D	D	D	D	D	D	D	D	W	D		D	D	13	1	6.5
CMC	D	L	D	L	D	D	D	D	D	W	D	D		D	11	1	13
DNI	D	L	D	D	D	D	D	D	D	W	D	D	D		12	1	11.5

RBFNI

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVMi	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	D	13	1	4.5
EC	D		W	D	D	W	D	W	W	W	W	W	D	W	13	8	1
KNNI	D	L		D	D	D	D	D	D	D	D	D	D	D	12	0	10.5
WKNNI	D	D	D		D	D	D	D	D	W	D	D	D	D	13	1	4.5
KMI	D	D	D	D		D	D	D	D	W	D	D	L	D	12	1	7
FKMI	D	L	D	D	D		D	D	D	D	D	D	D	D	12	0	10.5
SVMi	D	D	D	D	D	D		W	D	W	D	D	D	D	13	2	2.5
EM	D	L	D	D	D	D	L		D	D	D	D	D	D	11	0	13
SVDI	D	L	D	D	D	D	D	D		W	D	D	D	D	12	1	7
BPCA	L	L	D	L	L	D	L	D	L		D	D	L	L	5	0	14
LLSI	D	L	D	D	D	D	D	D	D	D		D	D	D	12	0	10.5
MC	D	L	D	D	D	D	D	D	D	D	D		D	D	12	0	10.5
CMC	D	D	D	D	W	D	D	D	D	W	D	D		D	13	2	2.5
DNI	D	L	D	D	D	D	D	D	D	W	D	D	D		12	1	7

C4.5

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	D	13	1	5
EC	D		D	D	D	D	D	W	W	W	D	D	D	D	13	3	2.5
KNNI	D	D		D	D	D	L	D	D	W	D	D	D	D	12	1	9
WKNNI	D	D	D		D	D	L	D	D	W	D	L	D	D	11	1	11
KMI	D	D	D	D		D	D	D	D	W	D	D	D	D	13	1	5
FKMI	D	D	D	D	D		L	W	D	W	D	D	D	D	12	2	7.5
SVM	D	D	W	W	D	W		W	W	W	W	W	D	D	13	8	1
EM	D	L	D	D	D	L	L		D	W	D	D	D	L	9	1	13
SVDI	D	L	D	D	D	D	L	D		W	D	D	D	D	11	1	11
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	L	0	0	14
LLSI	D	D	D	D	D	D	L	D	D	W		D	D	L	11	1	11
MC	D	D	D	W	D	D	L	D	D	W	D		D	D	12	2	7.5
CMC	D	D	D	D	D	D	D	D	D	W	D	D		D	13	1	5
DNI	D	D	D	D	D	D	D	W	D	W	W	D	D		13	3	2.5

1-NN

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	D	13	1	5
EC	D		D	D	D	D	D	D	D	W	D	D	L	D	12	1	9.5
KNNI	D	D		D	W	D	D	D	W	W	D	D	D	D	13	3	2.5
WKNNI	D	D	D		W	D	D	D	D	W	D	D	D	D	13	2	4
KMI	D	D	L	L		L	D	D	D	W	D	L	L	D	8	1	12
FKMI	D	D	D	D	W		D	W	W	W	D	D	L	D	12	4	6
SVM	D	D	D	D	D	D		D	D	W	D	D	L	D	12	1	9.5
EM	D	D	D	D	D	L	D		D	W	L	D	L	L	9	1	11
SVDI	D	D	L	D	D	L	D	D		W	L	L	L	L	7	1	13
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	L	0	0	14
LLSI	D	D	D	D	D	D	D	W	W	W		D	L	D	12	3	7.5
MC	D	D	D	D	W	D	D	D	W	W	D		L	D	12	3	7.5
CMC	D	W	D	D	W	W	W	W	W	W	W	W		D	13	9	1
DNI	D	D	D	D	D	D	D	W	W	W	D	D	D		13	3	2.5

LOG

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	W	D	W	D	D	D	W	13	3	6
EC	D		W	W	D	D	D	W	W	W	D	D	D	W	13	6	3
KNNI	D	L		D	L	L	D	W	W	W	D	L	L	W	8	4	9
WKNNI	D	L	D		L	L	D	D	D	W	D	L	L	W	8	2	10
KMI	D	D	W	W		D	D	W	W	W	D	D	D	W	13	6	3
FKMI	D	D	W	W	D		D	W	W	W	D	D	D	W	13	6	3
SVM	D	D	D	D	D	D		D	D	W	D	D	D	W	13	2	7.5
EM	L	L	L	D	L	L	D		D	W	D	L	L	W	6	2	12
SVDI	D	L	L	D	L	L	D	D		W	D	L	L	W	7	2	11
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	W	1	1	13
LLSI	D	D	D	D	D	D	D	D	D	W		D	D	W	13	2	7.5
MC	D	D	W	W	D	D	D	W	W	W	D		D	W	13	6	3
CMC	D	D	W	W	D	D	D	W	W	W	D	D		W	13	6	3
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

LVQ

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	W	D	D	W	W	D	D	D	D	W	13	4	3.5
EC	D		D	D	D	D	D	W	W	D	D	D	D	W	13	3	7
KNNI	D	D		D	D	D	D	W	W	D	D	D	D	W	13	3	7
WKNNI	D	D	D		D	L	D	W	W	D	D	D	L	W	11	3	10
KMI	L	D	D	D		L	D	W	W	D	D	D	L	W	10	3	11
FKMI	D	D	D	W	W		D	W	W	D	D	D	D	W	13	5	1.5
SVM	D	D	D	D	D	W		W	W	D	D	D	D	W	13	4	3.5
EM	L	L	L	L	L	L	L		D	L	L	L	L	W	2	1	12.5
SVDI	L	L	L	L	L	L	L	D		L	L	L	L	W	2	1	12.5
BPCA	D	D	D	D	D	D	D	W	W		D	D	D	W	13	3	7
LLSI	D	D	D	D	D	D	D	W	W	D		D	D	W	13	3	7
MC	D	D	D	D	D	D	D	W	W	D	D		D	W	13	3	7
CMC	D	D	D	W	W	D	D	W	W	D	D	D		W	13	5	1.5
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

MLP

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		L	L	L	L	L	L	D	L	D	L	L	L	L	2	0	13
EC	W		D	D	D	D	L	D	D	W	D	D	D	D	12	2	8.5
KNNI	W	D		D	L	D	L	D	D	W	D	D	L	D	10	2	11
WKNNI	W	D	D		D	D	D	D	D	W	D	D	D	W	13	3	4.5
KMI	W	D	W	D		D	D	D	D	W	D	D	D	W	13	4	3
FKMI	W	D	D	D	D		D	D	D	W	D	D	D	W	13	3	4.5
SVM	W	W	W	D	D	D		W	D	W	D	D	D	W	13	6	1.5
EM	D	D	D	D	D	D	L		D	W	D	D	L	D	11	1	10
SVDI	W	D	D	D	D	D	D	D		W	D	D	L	D	12	2	8.5
BPCA	D	L	L	L	L	L	L	L	L		L	L	L	L	1	0	14
LLSI	W	D	D	D	D	D	D	D	D	W		D	D	D	13	2	6.5
MC	W	D	D	D	D	D	D	D	D	W	D		D	D	13	2	6.5
CMC	W	D	W	D	D	D	D	W	W	W	D	D		W	13	6	1.5
DNI	W	D	D	L	L	L	L	D	D	W	D	D	L		8	2	12

NB

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	L	L	L	D	D	D	L	9	0	12
EC	D		D	D	D	D	W	L	L	L	D	D	W	L	9	2	10
KNNI	D	D		D	D	D	W	D	D	L	D	D	W	L	11	2	6.5
WKNNI	D	D	D		D	D	W	D	D	L	D	D	W	L	11	2	6.5
KMI	D	D	D	D		D	W	D	D	L	W	D	W	L	11	3	4.5
FKMI	D	D	D	D	D		W	D	L	L	D	L	D	L	9	1	11
SVM	D	L	L	L	L	L		D	L	D	D	W	L	L	5	1	13
EM	W	W	D	D	D	D	D		D	L	D	D	W	L	11	3	4.5
SVDI	W	W	D	D	D	W	W	D		L	D	D	W	L	11	5	3
BPCA	W	W	W	W	W	W	D	W	W		W	W	W	L	12	11	2
LLSI	D	D	D	D	L	D	D	D	D	L		D	W	L	10	1	9
MC	D	D	D	D	D	W	L	D	D	L	D		W	L	10	2	8
CMC	D	L	L	L	L	D	W	L	L	L	L	L		L	3	1	14
DNI	W	W	W	W	W	W	W	W	W	W	W	W	W		13	13	1

v-SVM

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	L	D	D	D	L	11	0	10
EC	D		D	L	D	L	D	L	L	L	L	D	D	L	6	0	13
KNNI	D	D		D	D	D	D	D	D	L	D	D	W	L	11	1	8
WKNNI	D	W	D		D	D	D	D	D	L	D	D	W	L	11	2	4.5
KMI	D	D	D	D		D	D	D	D	L	D	W	D	L	11	1	8
FKMI	D	W	D	D	D		D	D	D	L	D	D	W	L	11	2	4.5
SVM	D	D	D	D	D	D		D	D	L	D	D	W	L	11	1	8
EM	D	W	D	D	D	D	D		W	L	D	D	D	L	11	2	4.5
SVDI	D	W	D	D	D	D	D	L		L	D	D	D	L	10	1	11.5
BPCA	W	W	W	W	W	W	W	W	W		W	W	W	L	12	12	2
LLSI	D	W	D	D	D	D	D	D	D	L		D	W	L	11	2	4.5
MC	D	D	D	D	L	D	D	D	D	L	D		W	L	10	1	11.5
CMC	D	D	L	L	D	L	L	D	D	L	L	L		L	5	0	14
DNI	W	W	W	W	W	W	W	W	W	W	W	W	W		13	13	1

C-SVM

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	W	13	2	5.5
EC	D		D	D	D	D	W	W	W	W	D	D	D	W	13	5	1
KNNI	D	D		D	D	D	D	D	D	W	D	D	D	W	13	2	5.5
WKNNI	D	D	D		D	D	D	D	D	W	D	D	D	W	13	2	5.5
KMI	D	D	D	D		D	D	D	D	W	D	D	D	W	13	2	5.5
FKMI	D	D	D	D	D		D	D	D	W	D	D	D	W	13	2	5.5
SVM	D	L	D	D	D	D		D	D	W	D	D	D	W	12	2	11
EM	D	L	D	D	D	D	D		W	W	D	D	D	W	12	3	10
SVDI	D	L	D	D	D	D	D	L		W	D	D	D	W	11	2	12
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	W	1	1	13
LLSI	D	D	D	D	D	D	D	D	D	W		D	D	W	13	2	5.5
MC	D	D	D	D	D	D	D	D	D	W	D		D	W	13	2	5.5
CMC	D	D	D	D	D	D	D	D	D	W	D	D		W	13	2	5.5
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

Ripper

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	W	13	2	8.5
EC	D		D	D	D	D	D	D	D	W	D	D	D	W	13	2	8.5
KNNI	D	D		D	D	D	D	W	W	W	D	D	D	W	13	4	2.5
WKNNI	D	D	D		D	D	D	W	W	W	D	D	D	W	13	4	2.5
KMI	D	D	D	D		D	D	W	W	W	D	D	D	W	13	4	2.5
FKMI	D	D	D	D	D		D	W	W	W	D	D	D	W	13	4	2.5
SVM	D	D	D	D	D	D		W	D	W	D	D	D	W	13	3	5.5
EM	D	D	L	L	L	L	L		D	W	L	D	D	W	7	2	12
SVDI	D	D	L	L	L	L	D	D		W	D	D	D	W	9	2	11
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	W	1	1	13
LLSI	D	D	D	D	D	D	D	W	D	W		D	D	W	13	3	5.5
MC	D	D	D	D	D	D	D	D	D	W	D		D	W	13	2	8.5
CMC	D	D	D	D	D	D	D	D	D	W	D	D		W	13	2	8.5
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

PART

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	W	W	13	3	1
EC	D		D	D	D	D	D	D	D	W	D	D	D	W	13	2	6.5
KNNI	D	D		D	D	D	D	D	D	W	D	D	D	W	13	2	6.5
WKNNI	D	D	D		D	D	D	D	D	W	D	D	D	W	13	2	6.5
KMI	D	D	D	D		D	D	D	D	W	D	D	D	W	13	2	6.5
FKMI	D	D	D	D	D		D	D	D	W	D	D	D	W	13	2	6.5
SVM	D	D	D	D	D	D		D	D	W	D	D	D	W	13	2	6.5
EM	D	D	D	D	D	D	D		D	W	D	D	D	W	13	2	6.5
SVDI	D	D	D	D	D	D	D	D		W	D	D	D	W	13	2	6.5
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	W	1	1	13
LLSI	D	D	D	D	D	D	D	D	D	W		D	D	W	13	2	6.5
MC	D	D	D	D	D	D	D	D	D	W	D		D	W	13	2	6.5
CMC	L	D	D	D	D	D	D	D	D	W	D	D		W	12	2	12
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

Slipper

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	W	D	D	D	W	W	13	3	4
EC	D		W	W	D	W	W	W	W	W	W	D	W	W	13	10	1
KNNI	D	L		D	L	D	D	D	W	D	D	L	W	W	10	3	11
WKNNI	D	L	D		D	D	D	D	W	D	D	D	W	W	12	3	7
KMI	D	D	W	D		D	D	D	W	D	D	D	W	W	13	4	3
FKMI	D	L	D	D	D		D	D	W	D	D	L	W	W	11	3	10
SVM	D	L	D	D	D	D		D	W	D	D	D	W	W	12	3	7
EM	D	L	D	D	D	D	D		W	D	D	D	W	W	12	3	7
SVDI	L	L	L	L	L	L	L	L		L	L	L	W	W	2	2	12
BPCA	D	L	D	D	D	D	D	D	W		D	D	W	W	12	3	7
LLSI	D	L	D	D	D	D	D	D	W	D		D	W	W	12	3	7
MC	D	D	W	D	D	W	D	D	W	D	D		W	W	13	5	2
CMC	L	L	L	L	L	L	L	L	L	L	L	L		W	1	1	13
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

3-NN

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	L	L	L	D	10	1	11
EC	D		L	L	L	L	L	L	L	W	L	L	L	L	2	1	13
KNNI	D	W		D	D	D	D	D	D	W	D	D	D	W	13	3	5.5
WKNNI	D	W	D		D	D	D	D	D	W	D	D	D	W	13	3	5.5
KMI	D	W	D	D		D	D	D	W	W	D	D	D	D	13	3	5.5
FKMI	D	W	D	D	D		D	D	W	W	D	D	D	W	13	4	1.5
SVM	D	W	D	D	D	D		D	D	W	D	D	D	D	13	2	9
EM	D	W	D	D	D	D	D		W	W	D	D	D	D	13	3	5.5
SVDI	D	W	D	D	L	L	D	L		W	D	L	D	D	9	2	12
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	L	0	0	14
LLSI	W	W	D	D	D	D	D	D	D	W		D	D	D	13	3	5.5
MC	W	W	D	D	D	D	D	D	W	W	D		D	D	13	4	1.5
CMC	W	W	D	D	D	D	D	D	D	W	D	D		D	13	3	5.5
DNI	D	W	L	L	D	L	D	D	D	W	D	D	D		10	2	10

AQ

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	W	13	2	6.5
EC	D		D	D	D	D	D	D	D	W	D	D	D	W	13	2	6.5
KNNI	D	D		D	D	L	L	D	D	W	D	D	D	W	11	2	11
WKNNI	D	D	D		D	D	D	D	D	W	D	D	D	W	13	2	6.5
KMI	D	D	D	D		D	D	D	D	W	D	D	D	W	13	2	6.5
FKMI	D	D	W	D	D		D	W	D	W	D	D	D	W	13	4	2
SVM	D	D	W	D	D	D		W	W	W	D	D	D	W	13	5	1
EM	D	D	D	D	D	L	L		D	W	D	D	L	W	10	2	12
SVDI	D	D	D	D	D	D	L	D		W	D	D	D	W	12	2	10
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	W	1	1	13
LLSI	D	D	D	D	D	D	D	D	D	W		D	D	W	13	2	6.5
MC	D	D	D	D	D	D	D	D	D	W	D		D	W	13	2	6.5
CMC	D	D	D	D	D	D	D	W	D	W	D	D		W	13	3	3
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

CN2

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVMi	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	D	13	1	10
EC	D		D	D	D	D	D	W	W	W	D	D	D	D	13	3	5.5
KNNI	D	D		D	D	D	D	W	W	W	D	D	D	D	13	3	5.5
WKNNI	D	D	D		D	D	D	W	W	W	W	D	D	D	13	4	1
KMI	D	D	D	D		D	D	W	W	W	D	D	D	D	13	3	5.5
FKMI	D	D	D	D	D		D	W	W	W	D	D	D	D	13	3	5.5
SVMi	D	D	D	D	D	D		W	W	W	D	D	D	D	13	3	5.5
EM	D	L	L	L	L	L	L		L	W	L	L	L	L	2	1	13
SVDI	D	L	L	L	L	L	L	W		W	L	L	L	L	3	2	12
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	L	0	0	14
LLSI	D	D	D	L	D	D	D	W	W	W		D	D	D	12	3	11
MC	D	D	D	D	D	D	D	W	W	W	D		D	D	13	3	5.5
CMC	D	D	D	D	D	D	D	W	W	W	D	D		D	13	3	5.5
DNI	D	D	D	D	D	D	D	W	W	W	D	D	D		13	3	5.5

SMO

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	W	13	2	5.5
EC	D		D	D	D	D	D	W	W	W	D	D	D	W	13	4	2
KNNI	D	D		D	D	D	D	D	D	W	D	D	D	W	13	2	5.5
WKNNI	D	D	D		D	D	D	D	D	W	D	D	D	W	13	2	5.5
KMI	D	D	D	D		L	D	D	D	W	D	D	D	W	12	2	9
FKMI	D	D	D	D	W		D	D	D	W	D	D	D	W	13	3	3
SVM	D	D	D	D	D	D		D	D	W	D	D	L	W	12	2	9
EM	D	L	D	D	D	D	D		D	W	D	D	L	W	11	2	11.5
SVDI	D	L	D	D	D	D	D	D		W	D	D	L	W	11	2	11.5
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	W	1	1	13
LLSI	D	D	D	D	D	D	D	D	D	W		D	L	W	12	2	9
MC	D	D	D	D	D	D	D	D	D	W	D		D	W	13	2	5.5
CMC	D	D	D	D	D	D	W	W	W	W	W	D		W	13	6	1
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

LBR

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	D	D	D	D	W	13	1	5
EC	D		D	D	D	D	D	D	L	W	D	D	D	W	12	2	9
KNNI	D	D		D	D	D	D	D	L	W	D	D	D	W	12	2	9
WKNNI	D	D	D		D	D	D	D	L	W	D	D	D	W	12	2	9
KMI	D	D	D	D		D	D	D	L	W	D	D	D	W	12	2	9
FKMI	D	D	D	D	D		D	D	L	W	D	D	D	W	12	2	9
SVM	D	D	D	D	D	D		D	D	W	D	D	D	W	13	2	3
EM	D	D	D	D	D	D	D		L	W	D	D	D	W	12	2	9
SVDI	D	W	W	W	W	W	D	W		W	W	D	D	W	13	9	1
BPCA	D	L	L	L	L	L	L	L	L		L	L	L	W	2	1	13
LLSI	D	D	D	D	D	D	D	D	L	W		D	D	W	12	2	9
MC	D	D	D	D	D	D	D	D	D	W	D		D	W	13	2	3
CMC	D	D	D	D	D	D	D	D	D	W	D	D		W	13	2	3
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

LWL

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	W	13	2	8
EC	D		D	D	D	D	D	D	D	W	D	D	D	W	13	2	8
KNNI	D	D		D	D	D	D	D	D	W	D	D	D	W	13	2	8
WKNNI	D	D	D		D	D	D	D	D	W	D	D	D	W	13	2	8
KMI	D	D	D	D		D	D	D	W	W	D	D	D	W	13	3	2.5
FKMI	D	D	D	D	D		D	D	W	W	D	D	D	W	13	3	2.5
SVM	D	D	D	D	D	D		D	D	W	D	D	D	W	13	2	8
EM	D	D	D	D	D	D	D		W	W	D	D	D	W	13	3	2.5
SVDI	D	D	D	D	L	L	D	L		W	D	L	D	W	9	2	12
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	W	1	1	13
LLSI	D	D	D	D	D	D	D	D	D	W		D	D	W	13	2	8
MC	D	D	D	D	D	D	D	D	W	W	D		D	W	13	3	2.5
CMC	D	D	D	D	D	D	D	D	D	W	D	D		W	13	2	8
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

SRI

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	W	13	2	6.5
EC	D		D	D	D	D	D	D	D	W	D	D	D	W	13	2	6.5
KNNI	D	D		D	D	L	D	D	D	W	L	D	D	W	11	2	11.5
WKNNI	D	D	D		D	L	D	D	D	W	D	L	D	W	11	2	11.5
KMI	D	D	D	D		L	D	D	D	W	D	D	D	W	12	2	9.5
FKMI	D	D	W	W	W		D	D	D	W	D	D	D	W	13	5	1
SVM	D	D	D	D	D	D		D	D	W	D	D	D	W	13	2	6.5
EM	D	D	D	D	D	D	D		W	W	D	D	D	W	13	3	3
SVDI	D	D	D	D	D	D	D	L		W	D	D	D	W	12	2	9.5
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	W	1	1	13
LLSI	D	D	W	D	D	D	D	D	D	W		D	D	W	13	3	3
MC	D	D	D	W	D	D	D	D	D	W	D		D	W	13	3	3
CMC	D	D	D	D	D	D	D	D	D	W	D	D		W	13	2	6.5
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

Ritio

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVMi	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	W	13	2	6
EC	D		D	D	D	D	D	D	D	W	D	D	D	W	13	2	6
KNNI	D	D		D	D	D	D	D	D	W	D	D	L	W	12	2	11
WKNNI	D	D	D		D	D	D	D	D	W	D	D	D	W	13	2	6
KMI	D	D	D	D		L	D	D	D	D	D	D	L	W	11	1	12
FKMI	D	D	D	D	W		D	D	D	W	D	D	D	W	13	3	2
SVMi	D	D	D	D	D	D		D	D	W	D	D	D	W	13	2	6
EM	D	D	D	D	D	D	D		D	W	D	D	D	W	13	2	6
SVDI	D	D	D	D	D	D	D	D		D	D	D	D	W	13	1	10
BPCA	L	L	L	L	D	L	L	L	D		L	L	L	W	3	1	13
LLSI	D	D	D	D	D	D	D	D	D	W		D	D	W	13	2	6
MC	D	D	D	D	D	D	D	D	D	W	D		D	W	13	2	6
CMC	D	D	W	D	W	D	D	D	D	W	D	D		W	13	4	1
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14

Rules-6

	IM	EC	KNNI	WKNNI	KMI	FKMI	SVM	EM	SVDI	BPCA	LLSI	MC	CMC	DNI	Ties+Wins	Wins	RANKING
IM		D	D	D	D	D	D	D	D	W	D	D	D	W	13	2	5
EC	D		W	W	D	D	D	D	W	W	W	W	W	W	13	8	1
KNNI	D	L		D	D	L	L	D	D	W	D	D	D	W	10	2	11
WKNNI	D	L	D		D	L	L	D	D	W	D	D	D	W	10	2	11
KMI	D	D	D	D		D	L	D	D	W	D	D	D	W	12	2	7.5
FKMI	D	D	W	W	D		D	D	D	W	D	D	D	W	13	4	3
SVM	D	D	W	W	W	D		D	W	W	D	D	D	W	13	6	2
EM	D	D	D	D	D	D	D		W	W	D	D	D	W	13	3	4
SVDI	D	L	D	D	D	D	L	L		W	D	D	D	W	10	2	11
BPCA	L	L	L	L	L	L	L	L	L		L	L	L	W	1	1	13
LLSI	D	L	D	D	D	D	D	D	D	W		D	D	W	12	2	7.5
MC	D	L	D	D	D	D	D	D	D	W	D		D	W	12	2	7.5
CMC	D	L	D	D	D	D	D	D	D	W	D	D		W	12	2	7.5
DNI	L	L	L	L	L	L	L	L	L	L	L	L	L		0	0	14