



"W" based on ranks of environment difference scores (not required)

U

a , b , and $U_p (=U')$ are statistics for obtaining an improved chi-square statistic (not in paper). See Piepho (1997)

$\sum U_i^2$

df and P for U

(based on simple chi-square test)

Same as U

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Gray leaf spot, South 96, Final Y
Data file with _NAME_ for new COLUMN (block) label, and W for new SCORE variable
Test with PROC FREQ; use _NAME_*TRT*W, with CMH2
W is score for response (~~rank of column difference)
Q is from Statistic 2 (Row Means Differ)
09:07 Wednesday, June 20, 2007
  
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Obs	Chi-square Q diff	DF	Prob	Kend.Coef. Conc. Diff.	U statistic (diff.)	sumUi2	a	b	Modified U statistic (U_p)
1	10.7715	9	0.2917	0.23937	10.7715	807.010	20	1.66667	22.9524

Obs	Prob. U_p	F statistic (diff.)	Den. df for F (diff.)	Prob. F (diff.)	Prob. F improved NDF	improved DDF	improved ProbF	Rows	Columns
1	0.29114	1.25877	36	0.29229	8.6	34.4	0.29494	10	5

P value for F_U test

Improved df_N and df_D for F_U test

K and C

P based on U' (U_p) above – not in paper

F_U

"Usual" df_D for F test

P for F_U (not in paper) based on "usual" df