chisqPostHoc {NCStats}   R Documentation

Tests for significant differences among all pairs of populations in a chi-square test.

Description

Tests for significant differences among all pairs of populations in a chi-square test.

Usage

```
chisqPostHoc(chi, popsInRows = TRUE, control = stats::p.adjust.methods,
  digits = 4)
```

Arguments

chi
>   A `chisq.test` object

popsInRows
>   A logical indicating whether the populations form the rows (default; `=TRUE`) of the table or not (`=FALSE`)

control
>   A string indicating the method of control to use (see details)

digits
>   A numeric that controls the number of digits to print

...
>   Other arguments sent to `print`

Details

Post-hoc tests for which pairs of populations differ following a significant chi-square test can be constructed by performing all chi-square tests for all pairs of populations and then adjusting the resulting p-values for inflation due to multiple comparisons. The adjusted p-values can be computed with a wide variety of methods (see [p.adjust.methods](#)). This function basically works as a wrapper function that sends the unadjusted "raw" p-values from each pair-wise chi-square test to the [p.adjust](#) function in the base R program. The [p.adjust](#) function should be consulted for further description of the methods used.

Value

A data.frame with a description of the pairwise comparisons, the raw p-values, and the adjusted p-values.

See Also

[chisq.test](#) and [p.adjust](#).

Examples

```
# Makes a table of observations -- similar to first example in chisq.test
```

```
M <- as.table(rbind(c(76, 32, 46), c(48,23,47), c(45,34,78)))
dimnames(M) <- list(sex=c("Male","Female","Juv"),loc=c("Lower","Middle","Upper"))
M
# Fits chi-square test and shows summary
( chi1 <- chisq.test(M) )
# Shows post-hoc pairwise comparisons using fdr method
chisqPostHoc(chi1)

# Transpose the observed table to demonstrate use of popsInRows=FALSE
( chi2 <- chisq.test(t(M)) )
chisqPostHoc(chi2,popsInRows=FALSE)
```

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