

The program **FET2xc\_i** implements Fisher's Exact Test in  $2 \times c$  contingency tables making use of a modified network algorithm (see Requena and Martín 2006) which considers the PAST's of the network algorithm grouped in intervals. The length of the intervals is controlled by an integer value  $g$  which has to be introduced. This procedure reduces both computing time and amount of memory required (with respect to those obtained through the program **FET2xc**), keeping an adequate number of exact figures in the  $p$ -value. Computing time and amount of memory required reduce with  $g$ . Generally, the  $p$ -value will have at least  $g$  exact figures; as an exception it might have  $g-1$  exact figures. So, for an adequate integer value  $g$ , and whatever  $2 \times c$  table is analyzed, this program is much more fast than **FET2xc** and, also, much more fast than StatXact-5.

**FET2xc\_i** is valid for any  $2 \times c$  contingency table with  $c$  less than or equal to 200, and the total sum ( $N$ ) of the table no greater than 20000. The program is written in Visual FORTRAN 6.5, and carries out the calculations in FORTRAN double precision. The output of the program includes the hypergeometric probability of the observed  $2 \times c$  table, the  $p$ -value of the test and the computing time.

If  $2 \times c$  contingency table is too big, the fixed memory of the program can be exceeded, and then the program is aborted. In this case you can introduce a lesser integer value  $g$  or, alternatively, use the program **FET2xc\_ie** (with a larger fixed memory). Moreover, if RAM memory is not enough, then the hard disk can be used and the computing time can be large. In this case you can introduce a lesser integer value  $g$ .

#### References:

Requena, F., Martín, N, 2006. A major improvement to the Network Algorithm for Fisher's Exact Test in  $2 \times c$  Contingency Tables. *Computational Statistics & Data Analysis*, 51, 490-498.

StatXact-5, 2001. A Statistical Package for Exact Nonparametric Inference. Cytel Software Corporation, Cambridge, MA.