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@@ Programa nlFIT - Ajuste não linear por Gauss-Newton

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« → x1 y1 w1 ↓↑f ↓↑p ↓↑v it
  « 1. it
    FOR k k 1. DISP x1 SIZE → n
      « ↓↑f ↓↑p ↓↑v ↓↑s 4. →LIST DUP 'fields' STO EVAL DROP DUP SIZE
E → m
        « 3. →LIST { ↓↑f ↓↑p ↓↑v } STO ↓↑v ↓↑p STO ↓↑p 1.
          « ↓↑f SWAP -3. CF DUP → x ↑↓
            «
              IF DUP TYPE 9. ==
              THEN x SHOW
              END x { ↑↓ } + ↓MATCH DROP '↑↓' DUP STO ↑↓ ð x '↑↓' ST
TO EVAL
            »
          » DOLIST 'da' STO y1 x1 2.
          « 'x' STO ↓↑f EVAL -
          » DOLIST OBJ→ 1. 2. →LIST →ARRY 1. n
          FOR i x1 i GET 'x' STO 1. m
            FOR j da j GET EVAL
            NEXT
          NEXT { n m } →ARRY w1 DUP SIZE SWAP OBJ→ →ARRY SWAP DIAG→
          IF w1 ΣLIST NOT
          THEN 1. SF
          END → ym xm wm
          « xm TRN wm * xm * INV DUP xm TRN * wm * ym * DUP m 1. →LI
IST RDM 3.
ROLLD ym xm ROT * - DUP TRN SWAP * 1. GET n m - /
            IF 1. FS?C
            THEN SWAP OVER * SWAP
            END √ 'x' PURGE ROT OBJ→ 1. GET →LIST ↓↑v ADD '↓↑v' STO
 '↓↑s' STO
DUP →DIAG OBJ→ 1. GET →LIST √ 'sig' STO 'cm' STO ↓↑v ↓↑p STO
          »
        »
      »
    NEXT cm 'cov' →TAG ↓↑p 'pars' →TAG ↓↑v 'vals' →TAG sig 'sd' →TAG
G ↓↑s SQ x1
SIZE 2. - * 'chiSQ' →TAG ERASE SCATTER x1
    « MIN
    » STREAM ABS NEG 1.1 * x1
    « MAX
    » STREAM ABS 1.1 * XRNG 'x' INDEP y1
    « MIN
    » STREAM y1
    « MAX
    » STREAM DUP2 - ABS 1.2 * DUP .05 * ROT + ABS 3. ROLLD .15 * -
ABS NEG SWAP
YRNG 0. RES DRAX 1. x1 SIZE
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    FOR q x1 y1 q GET SWAP q GET SWAP R→C PIXON
    NEXT ↓↑f STEQ FUNCTION DRAW PICTURE
  » { ↓↑s sig cm fields x da ΣDAT ΣPAR PPAR EQ Vm Km } PURGE 1000.
3. BEEP
»
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