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10 <<<<<<<< Gravedad Astral >
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20 <<<<< por Juan I. Tel Amar
o >>>>>
30 MODE 1:INK 1,26:INK 2,22:IN
K 3,10:PAPER 0:PEN 1:PAPER 0:B
ORDER 0:CLS
40 x=0:y=200:dx=0:dy=0
50 CLS:INPUT"Velocidad horizon
tal...",dx
60 INPUT"Velocidad vertical...
...",dy
70 INPUT"Numero de estrellas..
...",num
80 DIM x(num),y(num),forz(num)
,x1(num),y1(num):FOR n=1 TO nu
m:PRINT CHR$(7);:CLS
90 INPUT"Coordenada x.....
...",x(n)
100 INPUT"Coordenada y.....
...",y(n)
110 INPUT"Atraccion ( 1-10 )..
...",forz(n):forz(n)=forz(n)*10
00
120 NEXT
130 CLS:GRAPHICS PEN 2:DEG:FOR
i=1 TO num:MOVE x(i)+2,y(i):D
RAW x(i)-2,y(i):MOVE x(i),y(i)
+2:DRAW x(i),y(i)-2:NEXT
140 PLOT x,y,0:x=x+dx:y=y+dy:P
LOT x,y,1:"Poniendo "140 y=y+d
y:PLOT x,y,1" Se ve la trayect
oria de la partícula cosmica
150 FOR n=1 TO num:IF ABS(x-x(
num))<8 AND ABS(y-y(num))<8 TH
EN FOR m=1 TO 30:SOUND 1,0,10,
9+m/5,,,32-m:SOUND 2,4000,10,
9+m/5,,,32-m:SOUND 2,4000,10,9
+m/5,,,32-m:SOUND 4,130*m,10,1
5:NEXT:FOR m=1 TO 400:PLOT x+R
ND*m/8-m/16,y+RND*m/8-m/16,INT
(RND*3):NEXT:CALL &BB18:RUN
160 NEXT
170 FOR n=1 TO num:x1(n)=x-x(n

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):y1(n)=y-y(n):NEXT
180 FOR n=1 TO num
190 fuerza=forz(n)/(x1(n)^2+y1
(n)^2):prop=x1(n)/y1(n):x1=x1(
n)/ABS(x1(n)):y1=y1(n)/ABS(y1(
n))
200 IF x1<>1 AND x1<>-1 THEN x
1=0
210 IF y1<>1 AND y1<>-1 THEN y
1=0
220 IF prop>1E+10 OR prop<1E+1
0 THEN prop=1
230 y2=SQR((fuerza^2)/(prop^2+
1)):x2=prop*y2
240 x2=-ABS(x2)*x1:y2=-ABS(y2)
*y1
250 dx=dx+x2:dy=dy+y2
260 LOCATE 1,1:PRINT INT(x);IN
T(y);INT(dx*100)/100;INT(dy*10
0)/100;" "
270 NEXT
280 dx=dx-dx/300:dy=dy-dy/300
290 GOTO 140
300 GOTO 300
310 fuerza=90000/(x1^2+y1^2):d
istancia=SQR(x1^2+y1^2):reco=
distancia-fuerza:prop=x1/y1:x=
x1/ABS(x1):y=y1/ABS(y1)
320 y1=SQR((reco^2)/(prop^2+1
)):x1=prop*y1
330 x1=ABS(x1)*x:y1=ABS(y1)*y
340 DEG:CLS:FOR n=1 TO 360 STE
P 10:MOVE 320,200:DRAW 320+5*C
OS(n),200+5*SIN(n):NEXT
350 FOR m=1 TO 30:SOUND 1,0,10
,9+m/5,,,32-m:SOUND 2,4000,10,
9+m/5,,,32-m:SOUND 4,130*m,10,
15:NEXT
360 x=320:y=200:FOR m=1 TO 30:
SOUND 1,0,10,9+m/5,,,32-m:SOUN
D 2,4000,10,9+m/5,,,32-m:SOUND
4,130*m,10,15:NEXT:FOR m=1 TO
400:PLOT x+RND*m/8-m/16,y+RND
*m/8-m/16,INT(RND*3):NEXT

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