

Les equacions diferencials

$$m \frac{d^2 x}{dt^2} + x e^2 = a.$$

$$m \frac{d^2 y}{dt^2} + x^2 e^2 = 0$$

partint dels valors inicials $x = \frac{1}{2} y = 0$,
 $\frac{dx}{dt} = 0$, $\frac{dy}{dt} = 0$, definirem dos funcions $x(t)$ i $y(t)$

Considerem ~~un punt material de massa m i posició inicial $x = \frac{1}{2} y = 0$ i velocitat inicial $\dot{x} = \dot{y} = 0$ i un camp de forces derivat d'un potencial $V(x, y)$ que satisfaci la equació següent.~~

$$k \frac{d^2 q}{dt^2} + q e^{2(b)} = 0 \quad (k > 0) \quad (1)$$

on si considerem un punt material de massa m i posició inicial $x = \frac{1}{2} y = 0$ i sumergit en un camp de forces derivades del potencial

$$96 = x^2 e^x - e^x$$

El moment d'aquest punt
vindrà definit per les dos equa-
cions diferencials escrites prime-
rament en les quals m'vindrà
substituir per k. Hom ven facil-
ment que amb aquestes condicions
 $y = x + \dots$

~~[Extensive scribbled-out text]~~

$$\begin{aligned}
 (4_0 3_0 2_0 1_0) &= \frac{4^4}{48 \cdot 47 \cdot 46} \cdot \binom{12}{6} 4^0 = 1,754532 \\
 (4_0 3_0 2_0 1_0) &= \frac{4^5}{48 \cdot 47 \cdot 46} \cdot 12 \cdot \binom{11}{4} \binom{4}{2} 4^1 = 2,114837 \\
 (4_0 3_0 2_0 1_0) &= \frac{4^4}{48 \cdot 47 \cdot 46} \cdot \binom{12}{2} \binom{10}{2} \binom{4}{2} 4^2 = 0,446098 \\
 (4_0 3_0 2_0 1_0) &= \frac{4^3}{48 \cdot 47 \cdot 46} \cdot \binom{12}{3} \binom{4}{2} 4^3 = 0,009293 \\
 (4_0 3_0 1_0 1_0) &= \frac{4^4}{48 \cdot 47 \cdot 46} \cdot 12 \binom{3}{3} \binom{4}{3} 4^3 = 0,088118 \\
 (4_0 3_0 2_0 1_0) &= \frac{4^5}{48 \cdot 47 \cdot 46} \cdot 12 \cdot 11 \cdot 10 \cdot \binom{4}{2} \binom{2}{2} 4 = 0,016523 \\
 (4_0 3_0 1_0 1_0) &= \frac{4^3}{48 \cdot 47 \cdot 46} \cdot \binom{12}{2} \binom{4}{3} = 0,00005884 \\
 (4_0 3_0 1_0 1_0) &= \frac{4^3}{48 \cdot 47 \cdot 46} \cdot 12 \cdot \binom{11}{2} 4^2 = 0,0004589 \\
 (4_0 3_0 2_0 1_0) &= \frac{4^5}{48 \cdot 47 \cdot 46} \cdot 12 \cdot 11 \cdot \binom{4}{2} = 0,00002581
 \end{aligned}$$

$$\log 47.46.45.43 = 6,62.163 50 \pm 0,000005$$

$$47.46.45.43 = 4183470$$

$$\begin{array}{r}
 3585400 \\
 14183470 \\
 \hline
 339624 \quad 0,088118
 \end{array}$$

$$\begin{array}{r}
 729 \\
 256 \\
 \hline
 4374 \\
 3645 \\
 1458 \\
 \hline
 186524
 \end{array}$$

$$\begin{array}{r}
 18562/10 \\
 1928.520 \\
 255 \quad 132 \\
 \hline
 14183470 \\
 0,446098
 \end{array}$$

$$\begin{array}{r}
 24578 \\
 4096 \\
 8192 \\
 \hline
 9847360 \\
 0480420 \\
 0620730 \\
 202323
 \end{array}$$

(4 0 4 0)

~~4096~~
~~1792~~

~~8202~~
~~26064~~
~~20072~~
~~4096~~

~~7338542~~

4096
 1792

 8192
 35854
 28672

 4096
 734003 2 | 4 183470
 37565.6 20 115 4532
 22813 300
 1895 950

283

$$\begin{aligned}
 (A_0 3_0 2_0 1_4) &= \frac{1^4}{48.47.46.45} \binom{12}{4} 4^4 = 5,946654 \\
 (A_0 3_0 2_1 1_2) &= \frac{1.3}{48.47.46.45} \binom{11}{2} 12 \binom{4}{2} 4^2 = 2,504995 \\
 (A_0 3_0 2_2 1_0) &= \frac{4^2 3^2}{48.47.46.45} \binom{12}{2} \binom{4}{2} = 0,073265 \\
 (A_0 3_1 2_0 1_1) &= \frac{4^2 3.2}{48.47.46.45} 12.11.4. \binom{4}{3} = 0,043414 \\
 (A_1 3_0 2_0 1_0) &= \frac{4.3.2}{48.47.46.45} 12. = 0,00005164
 \end{aligned}$$

$$\begin{array}{r}
 64 \\
 64 \\
 \hline
 256 \\
 384 \\
 \hline
 4096 \\
 165 \\
 \hline
 20480 \\
 24576 \\
 4096 \\
 \hline
 675840 \\
 10810 \\
 8648 \\
 \hline
 97290
 \end{array}$$

$$\begin{array}{r}
 675840 \\
 92100 \\
 45390 \\
 64740 \\
 \hline
 197290 \\
 6,946654
 \end{array}$$

$$\begin{array}{r}
 675840 \\
 92100 \\
 45390 \\
 \hline
 7580 \\
 9210 \\
 1530 \\
 \hline
 25344 \\
 58860 \\
 048600 \\
 \hline
 197290 \\
 2,504995
 \end{array}$$

2400
02380
002180

12162
~~001110088~~

0018000
08040
00554

$$\binom{20}{12} = \frac{4^2}{48.44} \binom{12}{2} 4^2 = 7489361$$

$$\binom{20}{10} = \frac{4.3}{48.44} \binom{4}{2} 12 = \frac{0.382978}{7.872339}$$

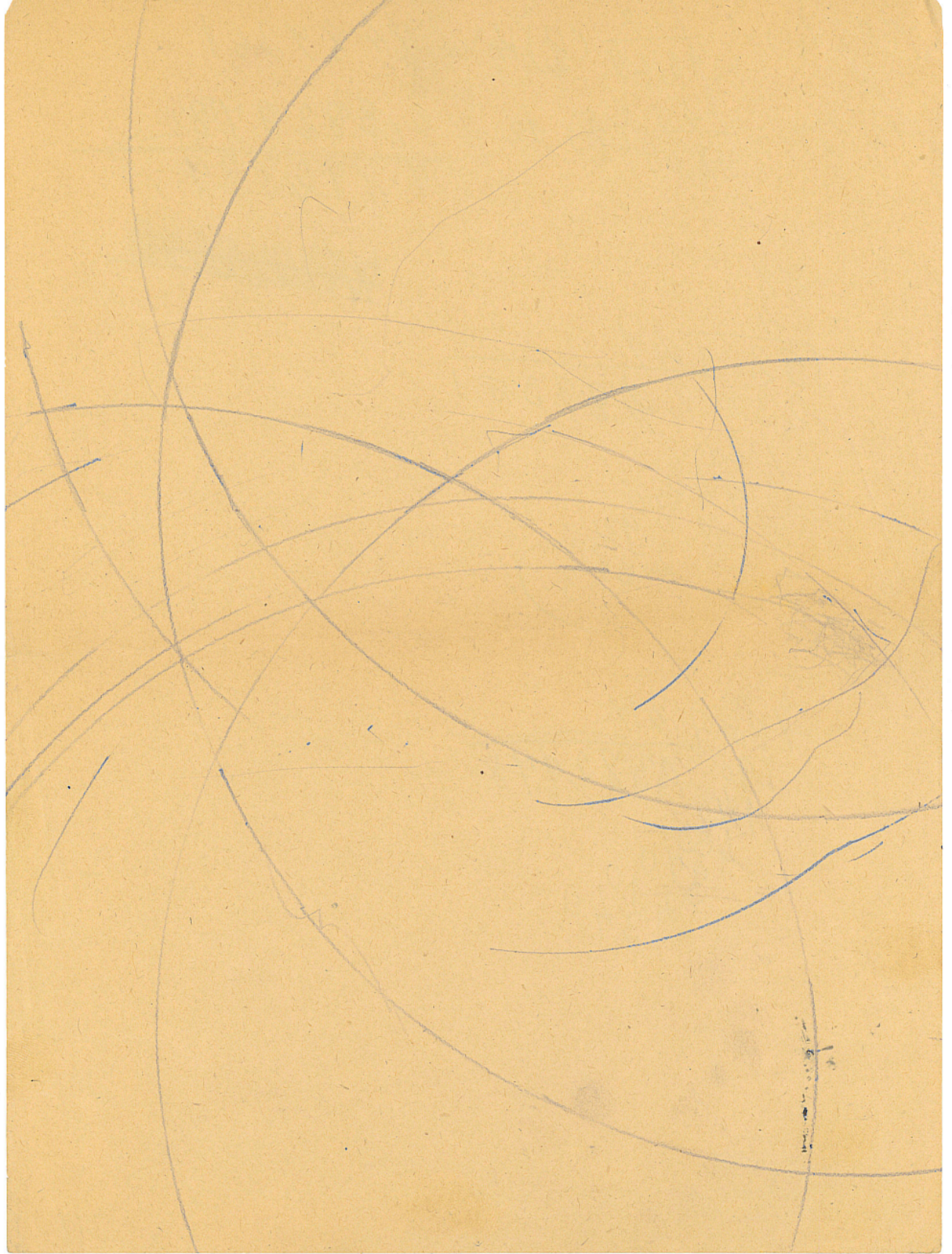
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$$\begin{array}{r} 88 \\ 4 \\ \hline 352 \end{array} \quad \begin{array}{r} 147 \\ \hline 7489361 \end{array}$$

230
120
440
140
190
2080
33

$$\begin{array}{r} 180 \\ 390 \\ 140 \\ 460 \\ 540 \\ \hline 1040 \end{array} \quad \begin{array}{r} 147 \\ \hline 0.382978 \end{array}$$

540
1040



$$P_4(8) = 15$$

$$P_4(7) = 11$$

$$P_4(6) = 9$$

$$P_4(5) = 6$$

$$P_4(4) = 5$$

$$P_4(3) = 3$$

$$P_4(2) = 2$$

$$P_4(1) = 1$$

34
27
23
18
15
11
9
5
5
3

15

~~56 320 16480~~
~~44880 88~~
~~918~~

56 320 16480
4 48 208 8331
54040
21520
220690
11620
51340
5938



$$P_2(n) = \left\lfloor \frac{n}{2} \right\rfloor + 1$$

$$P_k(n) = P_{k-1}(n) + P_{k-1}(n-k) + P_{k-1}(n-2k) + \dots \\ + P_{k-1}(n - \left\lfloor \frac{n}{k} \right\rfloor k)$$

$$P_4(12) = P_3(12) + P_3(8) + P_3(4) + P_3(0) = \\ = P_2(12) + P_2(9) + P_2(6) + P_2(3) + P_2(0) + P_2(8) \\ + P_2(5) + P_2(2) + P_2(4) + P_2(1) + P_2(0) = \\ = 7 + 5 + 4 + 2 + 1 + 5 + 3 + 2 + 3 + 1 + 1 = 31$$

$$P_4(11) = P_3(11) + P_3(8) + P_3(5) + P_3(2) + P_3(7) + P_3(4) \\ + P_3(1) + P_3(3) + P_3(0) = 6 + 5 + 3 + 2 + 4 + 3 \\ + 1 + 2 + 1 = 27$$

$$P_4(10) = P_3(10) + P_3(7) + P_3(4) + P_3(1) + P_3(6) \\ + P_3(3) + P_3(0) + P_3(2) = 6 + 4 + 3 + 1 + 4 \\ + 2 + 1 + 2 = 23$$

$$P_4(9) = P_3(9) + P_3(6) + P_3(3) + P_3(0) + P_3(5) \\ + P_3(2) + P_3(1) = 5 + 4 + 2 + 1 + 3 + 2 + 1 \\ = 18$$