1 开始

使用 LaTeX

$a^2 + b^2 = c^2$

$$
\begin{aligned}
|P - P_n| &= \left| a \sum_{k=n}^{\infty} \left(ae^{\frac{\pi}{4}i} \right)^k \right| = \left| a \left(ae^{\frac{\pi}{4}i} \right)^n \sum_{k=0}^{\infty} \left(ae^{\frac{\pi}{4}i} \right)^k \right| \\
&= \left| (2 - \sqrt{2})((\sqrt{2} - 1)(1 + i))^n \right| \cdot |P| \\
&= (2 - \sqrt{2})((\sqrt{2} - 1)\sqrt{2})^n \frac{\sqrt{6}}{3} \\
&= \frac{\sqrt{6}}{3}(2 - \sqrt{2})^{n+1}
\end{aligned}
$$

1.1 例子

量子效应[2]

$2\,\mathrm{H_2} + \mathrm{O_2} \longrightarrow 2\,\mathrm{H_2O}$

character	a	b	c	d	e
$f(c)$	45	13	12	16	9
Huffman Code	0	101	100	111	1101

$$
P\left(\frac{X_1 + X_2 + \cdots + X_n - n\mu}{\sigma\sqrt{n}} \leq x \right) \to \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{x} e^{-t^2/2} dt
$$

$$
\cos\theta = \frac{\vec{\mathrm{n}_1} \cdot \vec{\mathrm{n}_2}}{|\vec{\mathrm{n}_1}| \cdot |\vec{\mathrm{n}_2}|} = \frac{x_1 x_2 + y_1 y_2 + z_1 z_2}{\sqrt{x_1^2 + y_1^2 + z_1^2}\sqrt{x_2^2 + y_2^2 + z_2^2}}
$$

2 人工转变

$$
\begin{cases}
{}^4_2\mathrm{He} + {}^{14}_7\mathrm{N} \to {}^{17}_8\mathrm{O} + {}^1_1\mathrm{H}(\text{Rutherford}) \\
{}^4_2\mathrm{He} + {}^8_4\mathrm{Be} \to {}^{11}_6\mathrm{C} + {}^1_0\mathrm{n}(\text{Chadwick}) \\
{}^4_2\mathrm{He} + {}^{27}_{13}\mathrm{Al} \to {}^{30}_{15}\mathrm{P} + {}^1_0\mathrm{n}, {}^{30}_{15}\mathrm{P} \to {}^{30}_{14}\mathrm{Si} + {}^0_1\mathrm{e}(\text{Curie})
\end{cases}
$$

$$
C_x H_y O_z + (x + \frac{y}{4} - \frac{z}{2})O_2 \to xCO_2 + \frac{y}{2}H_2O
$$

3 Part 2

关于E^{n+1}中超球面特征的一些结果 [1]

参考文献

[1] 闻家君 陈抚良胡名成. 关于e^{n+1}中超球面特征的一些结果. 江西科学, 24(6):400–402, 2006.

[2] A. Einstein, B. Podolsky, and N. Rosen. Can quantum-mechanical description of physical reality be considered complete? *Phys Rev*, 47(10):696–702, 1935.