1 Intro

$$(1+\epsilon)^r = \sum_{n=0}^{\infty} \binom{r}{2} \epsilon^n \tag{1}$$

$$= \sum_{n=0}^{\infty} C_r \epsilon^n \tag{2}$$

Ceci est la formule du binôme de Newton.
Elle est très utile.

$$\mathbf{v} = \frac{\mathrm{d}\mathbf{r}}{\mathrm{d}t} = \dot{\mathbf{r}} \qquad \mathbf{a} = \frac{\mathrm{d}\mathbf{v}}{\mathrm{d}t} = \ddot{\mathbf{r}} \tag{3}$$

$$\mathbf{v} = \frac{d\mathbf{r}}{dt} \tag{4}$$

Maintenant, les matrices.

$$\sigma_x = \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix} \tag{5}$$

$$\sigma_y = \begin{bmatrix} 0 & -i \\ i & 0 \end{bmatrix} \tag{6}$$

Figure 1: Il n'y a pas de rats en Alberta

Notes pour nabla,

$$f(x) = xy^2 \tag{7}$$

$$\nabla f = \begin{pmatrix} y^2 \\ 2xy \end{pmatrix} \tag{8}$$

$$\boldsymbol{\nabla} \cdot \nabla f = 2x \tag{9}$$

$$\int_{-\infty}^{\infty} e^{-x^2/2\sigma^2}\,\mathrm{d}x = \sqrt{2\pi}\sigma \tag{10}$$

2 Figure

$$\int \mathrm{d} \int \tag{11}$$