First document

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February 2017

We have now added a title, author and date to our first LaTeX document! Hello! How are you? dwsfawfyyyyS

F is a vector funtion that gives us the normed vector in the direction in which the curve we are searching for is moving.

$$y = x + hF(x)$$
$$v = F(y)$$

$$\begin{aligned} f_1(x) &= 0 \\ f_2(x) &= 0 \\ v \cdot x - v \cdot y &= 0 \end{aligned} \tag{1}$$

$$\begin{aligned} h(x) := v \cdot x - v \cdot y = F(y) \cdot x - F(y) \cdot y = \\ = F(x + hF(x)) \cdot x - F(x + hF(x)) \cdot (x + hF(x)) = \\ = (F(x + hF(x)) \cdot x - F(x + hF(x)) \cdot x) - (F(x + hF(x)) \cdot hF(x)) = \\ = F(x + hF(x)) \cdot hF(x) \end{aligned} \tag{2}$$

$$h_{x_1} =$$

$$F(X) = \begin{bmatrix} f_{1,2}(X) \cdot f_{2,3}(X) - f_{1,3}(X) \cdot f_{2,2}(X) \\ f_{1,3}(X) \cdot f_{2,1}(X) - f_{1,1}(X) \cdot f_{2,3}(X) \\ f_{1,1}(X) \cdot f_{2,2}(X) - f_{1,2}(X) \cdot f_{2,1}(X) \end{bmatrix} / \left\| \begin{matrix} f_{1,2}(X) \cdot f_{2,3}(X) - f_{1,3}(X) \cdot f_{2,2}(X) \\ f_{1,3}(X) \cdot f_{2,1}(X) - f_{1,1}(X) \cdot f_{2,3}(X) \\ f_{1,1}(X) \cdot f_{2,2}(X) - f_{1,2}(X) \cdot f_{2,1}(X) \end{matrix} \right\| \tag{3}$$

*funded by the Overleaf team

$$F_{x_1}(X) =$$