

$$\text{velocity } {}^t\! \underline{\mathfrak{l}} \,/\, \text{speed } \overline{{}^t\! \underline{\mathfrak{l}}}$$

$$0|2\pi \ni t \mapsto {}^t\! \mathfrak{l} = ({}^t\! \mathfrak{c} ; {}^t\! \mathfrak{s})$$

$${}^t\! \mathfrak{l} \text{ parametrisierung ellipse } \frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$$

$${}^t\! \mathfrak{l} = \left(t\!:\!\frac{t^2}{2}\!:\!\frac{t^3}{3}\!:\!\cdots\!:\!\frac{t^n}{n}\right) \in \mathbb{R}^n$$

$$U \subset \mathbb{R}^n \colon \quad \mathbb{I} \overset{\mathfrak{l}}{\underset{\text{diff}}{\longrightarrow}} U \overset{\mathfrak{\gamma}}{\underset{\text{diff}}{\longrightarrow}} \mathbb{R} \colon \quad {}^t\! \underline{\mathfrak{l}} \perp \nabla_{{}^t\! \mathfrak{l}} \mathfrak{\gamma} \text{ orth} \implies \mathfrak{l} \ltimes \mathfrak{\gamma} = \text{ cst}$$

$$\mathbb{I} \overset{\mathfrak{l}}{\underset{+\text{diff}}{\longrightarrow}} \mathbb{R}^n \left\{ \begin{array}{l} \mathbb{I} \, \overline{{}^t\! \underline{\mathfrak{l}}} \leqslant 1 \\ \overline{{}^t\! \underline{\mathfrak{l}}} = 1 \end{array} \right. \implies \left\{ \begin{array}{l} {}^s\! \mathfrak{l} | {}^s\! \underline{\mathfrak{l}} = 0 \\ {}^s\! \mathfrak{l} | {}^s\! \underline{\mathfrak{l}} \leqslant - \overline{{}^s\! \underline{\mathfrak{l}}}^2 \end{array} \right.$$