

$$\mathbb{I}_{\text{ }_1\text{ }_1}\rightrightarrows \mathfrak{h}=\left\{\mathbb{I}\frac{\mathfrak{L}}{\text{diff}}\rightarrow \mathfrak{h}\right\}$$

$${}^t\mathfrak{L}=\left({}^t\mathfrak{L}^1\cdots {}^t\mathfrak{L}^n\right)\text{ parametrization }\mathfrak{h}\subset \mathbb{R}^n$$

$$\frac{d{}^t\mathfrak{L}}{dt}=\left(\frac{d{}^t\mathfrak{L}^1}{dt}\cdots \frac{d{}^t\mathfrak{L}^n}{dt}\right)\text{ tangent vector=velocity}$$

$$\mathbb{I}_{\text{ }_1\text{ }_1}\rightrightarrows \mathfrak{h}=\left\{\mathbb{I}\frac{\mathfrak{L}}{\text{diff}}\rightarrow \mathfrak{h}\right\}$$

$$R\left(t\right)=\left(x\left(t\right):y\left(t\right):z\left(t\right)\right)\text{ parametrization }\mathfrak{h}\subset \mathbb{R}^3$$

$$\frac{dR}{dt}=\left(\frac{dx}{dt}:\frac{dy}{dt}:\frac{dz}{dt}\right)\text{ tangent vector=velocity}$$