$$\mathrm{Sym}(\mathcal{T}_0^2(M)) = \bigcup_{t \in M} \mathrm{Sym}(\mathcal{T}_0^2(T_t(M)))$$

so at each

~~so for each t~~

~~$g_t \in \mathrm{Sym}$~~

$$g_t \in \mathrm{Sym}(\mathcal{T}_0^2(T_t(M)))$$

$\bigcup_t$ section takes to $g_t \in \mathrm{Sym}(\mathcal{T}_0^2(T_t(M)))$

so g_t takes in X_t, X_t as. The $\mathcal{T}_0^2$.

Riemann metric for $\wedge$ is $\boxed{x^T \wedge y}$

$\boxed{f: M \to \mathbb{R}}$ $\boxed{X_t f}$ $X_t f : M \to \mathbb{R}$

vector fields are derivatives!

Take basis vectors in $\mathbb{R}^2$ then

$$g_t(X_t, Y_t) = g_t\left(\frac{\partial}{\partial x_1}, \frac{\partial}{\partial x_2}\right)$$