

$$\mathbb{R}^{\ell}\times\mathbb{R}^m\ni\mathfrak{h}\overset{\gamma}{\underset{\text{diff}}{\longrightarrow}}\mathbb{R}^m$$

$$\overline{\frac{\partial \gamma}{\partial x|y}}^{a:b}=\overline{\frac{\partial \gamma}{\partial x}}^{a:b}|\overline{\frac{\partial \gamma}{\partial y}}^{a:b}$$

$$\left\{\begin{array}{l} \mathbb{R}^\ell \times \mathbb{R}^m \supset \mathfrak{h} \xrightarrow[\text{diff}]{\gamma} \mathbb{R}^m \\ \mathfrak{h} \ni a:b \mapsto {}^{a:b}\gamma = c \in \mathbb{R}^m \\ {}^{a:b}\overline{\frac{\partial \gamma}{\partial y}} \\ \mathbb{R}^m \xrightarrow[\text{inv}]{\frac{\partial y}{\partial y}} \mathbb{R}^m \end{array}\right. \Rightarrow \bigvee \mathbb{R}^\ell \supset U_a \xrightarrow[\text{diff}]{g} \mathbb{R}^m \left\{\begin{array}{l} {}^a\mathfrak{V} = b \\ \mathfrak{h} \supset W_{a:b} \supset \mathcal{G}_{\mathfrak{V}} \\ \bigwedge_x^{U_a} x: {}^x\mathfrak{V} \mathfrak{V} = c \end{array}\right.$$

$$W \xrightarrow[\text{diff}]{\mathfrak{V} = p_1 : \gamma} \frac{\mathbb{R}^\ell \times \mathbb{R}^m}{\mathbb{T} \times \mathbb{L}} \ni {}^{x:y}\mathfrak{V} = x: {}^{x:y}\gamma$$

$$\dot{x} \mid \dot{y} \quad {}^{a:b}\mathfrak{V} = \dot{x} \mid \underbrace{\dot{y} \, {}^{a:b}\mathfrak{V}} = \dot{x} \mid \underbrace{\dot{x} \, \overline{\frac{\partial_1 \gamma}{\partial_2 \gamma}} + \dot{y} \, \overline{\frac{\partial_2 \gamma}{\partial_2 \gamma}}} = \dot{x} \mid \dot{y} \, \frac{1}{0} \bigg| \frac{{}^{a:b}\overline{\frac{\partial_1 \gamma}{\partial_2 \gamma}}}{\overline{\frac{\partial_2 \gamma}{\partial_2 \gamma}}}$$

$$\Rightarrow {}^{a:b}\mathfrak{V} = \frac{1}{0} \bigg| \frac{{}^{a:b}\overline{\frac{\partial_1 \gamma}{\partial_2 \gamma}}}{\overline{\frac{\partial_2 \gamma}{\partial_2 \gamma}}} \quad \text{inv} \wedge {}^{a:b}\mathfrak{V}^{-1} = \frac{1}{0} \bigg| \frac{-\overline{\frac{\partial_1 \gamma}{\partial_2 \gamma}}}{\overline{\frac{-1}{\partial_2 \gamma}}} \quad \xRightarrow{\text{SUF}} \bigvee \mathfrak{h} \supset W_{a:b} \begin{array}{c} \xrightarrow[\text{bij}]{\mathfrak{V}} \\ \xleftarrow[\mathfrak{V}^{-1} = G^1 : G^2]{\text{diff}} \end{array} U_a \times V_c \subset \frac{\mathbb{R}^\ell \times \mathbb{R}^m}{\mathbb{T} \times \mathbb{L}}$$

$$xg = {}^{x:c}G^2 \Rightarrow U \xrightarrow[\text{diff}]{g} \frac{\mathbb{R}^m}{\mathbb{L}}$$

$$\mathcal{G}_g \subset W_{a:b} \wedge \bigwedge_x^{U_a} x: {}^xg \gamma = c$$

$$U_a \times V_c \ni x:z = \overbrace{{}^{x:z}\mathfrak{V}^{-1} \mathfrak{V}} = {}^{x:z}\mathfrak{V}^{-1} \mathfrak{V} = {}^{x:z}G^1 : {}^{x:z}G^2 \mathfrak{V} = \underbrace{{}^{x:z}G^1 : {}^{x:z}G^1 : {}^{x:z}G^2}_{\text{}} \mathfrak{V} \Rightarrow \begin{cases} {}^{x:z}G^1 & = x \in U_a \\ {}^{x:z}G^1 : {}^{x:z}G^2 \mathfrak{V} & = z \in V_c \end{cases}$$

$$\Rightarrow \bigwedge_x^{U_a} x: {}^xg = {}^{x:c}G^1 : {}^{x:c}G^2 = {}^{x:c}\mathfrak{V}^{-1} \in W_{a:b} \wedge {}^{x:zg} \gamma = {}^{x:c}G^2 \mathfrak{V} = {}^{x:c}G^1 : {}^{x:c}G^2 \mathfrak{V} = c$$

$${}^ag = b$$

$$a:b = \overbrace{{}^{a:b}\mathfrak{V}^{-1} \mathfrak{V}} = {}^{a:b}\mathfrak{V}^{-1} \mathfrak{V} = {}^{a:c}\mathfrak{V}^{-1} \mathfrak{V} = {}^{a:c}\mathfrak{V}^{-1} = {}^{a:c}G^1 : {}^{a:c}G^2 \Rightarrow \begin{cases} {}^{a:c}G^1 & = a \\ {}^ag = {}^{a:c}G^2 & = b \end{cases}$$