

$$x \overset{*}{y} x = 0 = y \overset{*}{x} y: \quad \zeta = B_x^{1/2} y$$

$${}^{x+\zeta} B_{x+\zeta} = {}^x B_x^{1/2} y B_x {}^y B_y {}^x B_y {}^x B_x^{1/2}$$

$$y^x = y$$

$$y \overset{*}{x} y = 0 \Rightarrow y^x = {}^y B_x^{-1} \overbrace{y - y \overset{*}{x} y}^* y = {}^y B_x^{-1} y$$

$$x \overset{*}{y} x = 0 \Rightarrow {}^y B_x y = y - 2y \overset{*}{x} y + y \overbrace{x \overset{*}{y} x}^* y = y$$

$${}^y g_x = \mathbf{t}_x {}^x B_x^{1/2} y \mathbf{t}_x^* = x + {}^x B_x^{1/2} y^{-x} = x + {}^x B_x^{1/2} y$$

$$\underline{{}^y g_x} = {}^x B_x^{1/2} y \underline{\mathbf{t}_x^*} = {}^x B_x^{1/2} y B_{-x}^{-1} = {}^x B_x^{1/2} y^{-x} B_x = {}^x B_x^{1/2} y B_x$$

$${}^{\zeta g} B_{\zeta g} = \zeta g \underline{\zeta} B_{\zeta} \underline{\zeta} g^*$$

$$Z^0 = 0$$

$$u \in Z^1: \quad v \in Z^{1/2}$$

$$v = {}^u B_u^{1/2} y: \quad u = {}^v B_v^{1/2} x$$

$${}^{u+v} B_{u+v} = {}^u B_u^{1/2} y B_u {}^y B_y {}^u B_y {}^u B_u^{1/2} = {}^v B_v^{1/2} x B_v {}^x B_x {}^v B_x {}^v B_v^{1/2}$$

$$u \overset{*}{v} u \in Z^{3/2} = 0$$

$$v \overset{*}{u} v \in Z^0 = 0$$