

The J-Connection

April-20-13
10:34 AM

$$J_u(\gamma) := \int_0^1 ds \operatorname{div}_u(\gamma \parallel RC_u^{s\gamma}) \parallel C_u^{-s\gamma} \quad \delta J_u(\gamma) = \delta\gamma \parallel \frac{1 - e^{-\operatorname{ad}\gamma}}{\operatorname{ad}\gamma} \parallel RC_u^\gamma \parallel \operatorname{div}_u \parallel C_u^{-\gamma}$$

Properties:

$$J_w(\gamma \parallel tm_w^{uv}) = J_u(\gamma) \parallel tm_w^{uv} + J_v(\gamma \parallel RC_u^\gamma) \parallel C_u^{-\gamma} \parallel tm_w^{uv}$$

$$J_u(\operatorname{bch}(\alpha, \beta)) = J_u(\alpha) + J_u(\beta \parallel RC_u^\alpha) \parallel C_u^{-\alpha}$$