

add a line counter

add time

### Cheat Sheet J

<http://drorbn.net/AcademicPensieve/2013-03/>  
initiated March 18, 2013; completed ???; modified March 18, 2013

- CRC equation t:
- CRC equation h:

$$tm_w^{uv} \parallel RC_w^\gamma \parallel tm_w^{uv} = RC_u^\gamma \parallel RC_v^\gamma \parallel RC_u^\gamma \parallel tm_w^{uv}$$

$$RC_u^{bch(\alpha, \beta)} = RC_u^\alpha \parallel RC_u^\beta \parallel RC_u^\alpha$$

- The definition of J:

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

- The t equation: (wanted)
- The h equation: (wanted)

$$J_u(\gamma \parallel tm_w^{uv}) \parallel RC_w^\gamma \parallel tm_w^{uv} = J_u(\gamma) \parallel tm_w^{uv} \parallel RC_w^\gamma \parallel tm_w^{uv} + J_v(\gamma \parallel RC_u^\gamma) \parallel RC_v^\gamma \parallel RC_u^\gamma \parallel tm_w^{uv}$$

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

Add:  $\operatorname{div}_w(\gamma \parallel tm_w^{uv}) = (\operatorname{div}_u(\gamma) + \operatorname{div}_v(\gamma)) \parallel tm_w^{uv}$

The cocycle property of div.

The relationship with JA, the ODE for JA

Definitions of J, j's cocycle property

fexp

f bch(α, β)

f C<sub>u</sub><sup>α</sup>

f RC<sub>u</sub><sup>α</sup>