Scatter And Glow

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11:01 AM

The Euler operator

$$aS(z) := z^{-1} a z \qquad G(z) := z^{-1} E z$$

(More glow formulas at 2008-08/BCH mod. [...])

$$\begin{aligned} G(wz) &= z^{-1} w^{-1} E(wz) \\ &= z^{-1} w^{-1} E(w) \cdot z + z^{-1} w^{-1} w E(z) \\ &= G(w) S(z) + G(z) \end{aligned}$$

$$G(\exp L) = e^{-L} E e^{L} = J(\operatorname{ad} L) E(L) \quad \text{where } J(x) = \frac{1 - e^{-x}}{x}$$

G is injective except perhaps in degree 1.

How does it determine S_0?

Or at least, is there a consistency equation relating G and S_0?