Pensieve Header: Shrinking the Logos.

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Λ0[k_] := -1/2 (-1+t_k) (α^2 β^2 + 4 α β δ (1 + (-1+t_k) δ) + 2 δ^2 (1 + (-1+t_k) δ)^2) +
  2 (1 + (-1+t_k) δ)^2 (α β + δ + (-1+t_k) δ^2) c_k -
  β (1 + 2 (-1+t_k) δ) (α β + 2 δ (1 + (-1+t_k) δ)) u_k + 2 β δ (1 + (-1+t_k) δ)^2 c_k u_k -
  1/2 β^2 δ (2 + 3 (-1+t_k) δ) u_k^2 + α (α β + 2 δ (1 + (-1+t_k) δ)) w_k + 2 α δ (1 + (-1+t_k) δ)^2 c_k w_k -
  2 (-1+t_k) δ^2 (α β + δ (1 + (-1+t_k) δ)) u_k w_k + 2 δ^2 (1 + (-1+t_k) δ)^2 c_k u_k w_k -
  β δ^2 (1 + 2 (-1+t_k) δ) u_k^2 w_k + 1/2 α^2 δ (2 + (-1+t_k) δ) w_k^2 + α δ^2 u_k w_k^2 - 1/2 (-1+t_k) δ^4 u_k^2 w_k^2;

Λ[k_] := (1 - t_k) (α^2 β^2 + 4 α β δ ν^-1 + 2 δ^2 ν^-2) / 2 + 2 ν^-2 (α β + δ ν^-1) c_k -
  β (2 ν^-1 - 1) (α β + 2 δ ν^-1) u_k + 2 β δ ν^-2 c_k u_k - β^2 δ (3 ν^-1 - 1) u_k^2 / 2 +
  α (α β + 2 δ ν^-1) w_k + 2 α δ ν^-2 c_k w_k - 2 (t_k - 1) δ^2 (α β + δ ν^-1) u_k w_k + 2 δ^2 ν^-2 c_k u_k w_k -
  β δ^2 (2 ν^-1 - 1) u_k^2 w_k + α^2 δ (1 + ν^-1) w_k^2 / 2 + α δ^2 u_k w_k^2 - (t_k - 1) δ^4 u_k^2 w_k^2 / 2;

Simplify[Λ0[k] == (Λ[k] /. ν → (1 + (t_k - 1) δ)^-1)]
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True

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Λ[k]
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$$\frac{2\left(\alpha\beta+\frac{\delta}{\nu}\right)c_k}{\nu^2}+\frac{1}{2}\left(\alpha^2\beta^2+\frac{2\delta^2}{\nu^2}+\frac{4\alpha\beta\delta}{\nu}\right)(1-t_k)-\beta\left(-1+\frac{2}{\nu}\right)\left(\alpha\beta+\frac{2\delta}{\nu}\right)u_k+$$
$$\frac{2\beta\delta c_k u_k}{\nu^2}-\frac{1}{2}\beta^2\delta\left(-1+\frac{3}{\nu}\right)u_k^2+\alpha\left(\alpha\beta+\frac{2\delta}{\nu}\right)w_k+\frac{2\alpha\delta c_k w_k}{\nu^2}+\frac{2\delta^2 c_k u_k w_k}{\nu^2}-$$
$$2\delta^2\left(\alpha\beta+\frac{\delta}{\nu}\right)(-1+t_k)u_k w_k-\beta\delta^2\left(-1+\frac{2}{\nu}\right)u_k^2 w_k+\frac{1}{2}\alpha^2\delta\left(1+\frac{1}{\nu}\right)w_k^2+\alpha\delta^2 u_k w_k^2-\frac{1}{2}\delta^4(-1+t_k)u_k^2 w_k^2$$

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Simplify[Λ[k]]
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$$\frac{1}{2\nu^3}\Big(4c_k(\delta+\alpha\beta\nu+\alpha\delta\nu w_k+\delta\nu u_k(\beta+\delta w_k))+$$
$$\nu\Big(2\delta^2+4\alpha\beta\delta\nu+\alpha^2\beta^2\nu^2+4\alpha\delta\nu w_k+2\alpha^2\beta\nu^2 w_k+\alpha^2\delta\nu w_k^2+$$
$$\alpha^2\delta\nu^2 w_k^2+\delta\nu u_k^2(\beta^2(-3+\nu)+2\beta\delta(-2+\nu)w_k+\delta^3\nu w_k^2)+$$
$$2u_k(\beta(-2+\nu)(2\delta+\alpha\beta\nu)+2\delta^2\nu(\delta+\alpha\beta\nu)w_k+\alpha\delta^2\nu^2 w_k^2)-$$
$$t_k(2\delta^2+4\alpha\beta\delta\nu+\alpha^2\beta^2\nu^2+4\delta^2\nu(\delta+\alpha\beta\nu)u_k w_k+\delta^4\nu^2 u_k^2 w_k^2)\Big)\Big)$$