$$R := -iR_{20}^0 + \dot{S}^A, \tag{1}$$

wir wählen Σ mit Gleichzeitigkeitsflächen, daher verschwindet $\dot{S}^A$ (wie auf jeder Blätterung). Ab jetzt gilt $R_{20} := R_{20}^0$.

$$\langle \phi, R_{20}(t)\psi \rangle = \int_{x\in\Sigma_t} \int_{y\in\Sigma_t} \overline{\phi}(x)_\gamma (d^4x) r_{20}(x,y,0) i_\gamma (d^4y)\psi(y), \quad \psi, \phi \in \mathcal{H}_{\Sigma_t} \tag{216, ivp2}$$

$$r_{20} := r_3 + r_{18} \tag{215}$$

$$r_{18} := \frac{r_{24}}{8m} + \frac{i}{8m}(r_{26} + r_{29}) \tag{214}$$

$$E_\mu := F_{\mu,0} \tag{2}$$

$$D(w) := \frac{1}{(2\pi)^3 m} \int_{\mathcal{M}^-} e^{ipw} i_p(d^4p) \tag{3}$$

$$p^{A,0}(x,y) := e^{-i\lambda^A(x,y)} p^-(z) \tag{4}$$

$$p^-(z) := \frac{-i\partial\!\!\!/ + m}{2m} D(z) \tag{5}$$

$$z := y - x \tag{6}$$

$$r^2 := -(y-x)^2 \tag{7}$$

$$r_{29} := -4\gamma^0 z^0 E\!\!\!/ \partial\!\!\!/ D \tag{208}$$

$$r_{26} := -\gamma^0\gamma^\mu\gamma^0 E\!\!\!/ z\!\!\!/ z_\mu m^2 D + \gamma^0 E\!\!\!/ z\!\!\!/ z_\mu m^2 D\gamma^\mu\gamma^0 \tag{199}$$

$$r_{24} := r_{23} + 0 \tag{196}$$

$$r_{23} := r_{22} + i\gamma^0\gamma^\mu(\partial_\mu^x[\gamma^0 E\!\!\!/])r^2 D + 0 \tag{194}$$

$$r_{22} := -\gamma^0(m + A\!\!\!/(x))[\gamma^0 E\!\!\!/(x) r^2 \partial\!\!\!/ D] + [\gamma^0 E\!\!\!/(x) r^2 \partial\!\!\!/ D](m + A\!\!\!/(y))\gamma^0 \tag{193}$$

$$r_3 := r_2 + r_7 - \frac{i}{4m} r_{16} \tag{181}$$

$$r_{16} := r_{12} + r_{15} \tag{178}$$

$$r_{15} := z^\mu \partial\!\!\!/ D(z)\gamma^\nu (F_{\mu,\nu}(x) - F_{\mu,\nu}(y))\gamma^0 \tag{175,173}$$

$$r_{12} := -2\gamma^\nu z^0 F_{\mu,\nu}(x)\partial^\mu D(z) \tag{170}$$

$$r_7 := \frac{1}{2}\gamma^0\gamma^\nu F_{\mu,\nu}(x) z^\mu r_6 + \frac{1}{2} r_6 \gamma^\nu F_{\mu,\nu}(y) z^\mu \gamma^0 \tag{155}$$

$$r_6 := \frac{1}{2} e^{-i\lambda^A(x,y)} D(z) + (e^{-i\lambda^A(x,y)} - 1)p^-(z) \tag{152}$$

$$r_2 := \frac{1}{2}\gamma^0 r_5(x,y) p^{A,0}(x,y) - \frac{1}{2} p^{A,0}(x,y) r_5(y,x)\gamma^0 \tag{150}$$

$$r_5 := \gamma^\nu[A_\nu(y) - A_\nu(x) - (y^\mu - x^\mu)\partial_\mu^x A_\nu(x)] \tag{146}$$