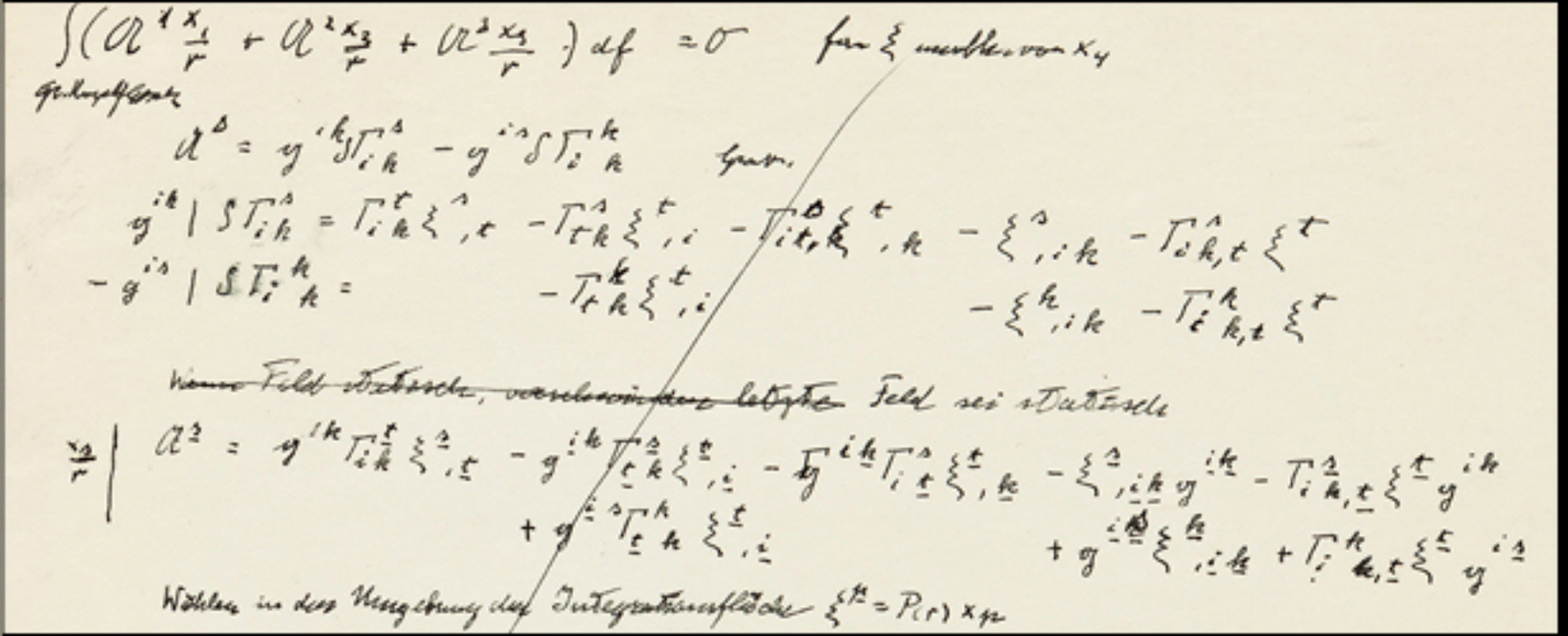

$$\int \left(\mathfrak{A}^1 \frac{x_1}{r} + \mathfrak{A}^2 \frac{x_2}{r} + \mathfrak{A}^3 \frac{x_3}{r} \right) df = 0 \qquad \text{für } \xi \text{ merkw. von } x_4$$

Integrationsfläche

$$\mathfrak{A}^\Delta = g^{ik} \Gamma_{ik}^\Delta - g^{ik} \delta \Gamma_{ik}^k \qquad \text{kurz.}$$

$$g^{ik} \mid \delta \Gamma_{ik}^\Delta = \Gamma_{ik}^t \xi^\Delta{}_{,t} - \Gamma_{tk}^\Delta \xi^t{}_{,i} - \Gamma_{it}^\Delta \xi^t{}_{,k} - \xi^\Delta{}_{,ik} - \Gamma_{\sigma k,t}^\Delta \xi^t$$

$$- g^{ik} \mid \delta \Gamma_{ik}^k = - \Gamma_{tk}^k \xi^t{}_{,i} - \xi^k{}_{,ik} - \Gamma_{ik,t}^k \xi^t$$

~~kein Feld Index, verschwindend letzte~~ Feld sei Index

$$\frac{x_2}{r} \Big| \quad \mathfrak{A}^2 = g^{ik} \Gamma_{ik}^{\underline{t}} \xi^{\underline{2}}{}_{,\underline{t}} - g^{ik} \Gamma_{\underline{t}k}^{\underline{2}} \xi^{\underline{t}}{}_{,i} - g^{i\underline{k}} \Gamma_{i\underline{t}}^{\Delta} \xi^{\underline{t}}{}_{,\underline{k}} - \xi^{\underline{2}}{}_{,i\underline{k}} g^{i\underline{k}} - \Gamma_{i\underline{k},\underline{t}}^{\underline{2}} \xi^{\underline{t}} g^{ik}$$

$$+ g^{i\Delta} \Gamma_{\underline{t}}^{\underline{k}}{}_{k} \xi^{\underline{t}}{}_{,i} \qquad + g^{i\underline{k}} \xi^{\underline{k}}{}_{,i\underline{k}} + \Gamma_{i}^{\underline{k}}{}_{k,\underline{t}} \xi^{\underline{t}} g^{i\Delta}$$

Wählen in der Umgebung der Integrationsfläche $\xi^{(t)} = P(r) \cdot x_p$