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$$V_K(t) = (t+t^3-t^4)(t^{\frac{1}{2}}+t^{-\frac{1}{2}})$$
$$V_K(t) = \int_{\mathcal{A}} (\text{Tr Pexp} \oint_K A) e^{\frac{i\hbar}{4\pi} \text{CS}(A)} \mathcal{D}A$$