

⑦ Compute small ε -expansion of $\text{Sp}(e^{\varepsilon \Delta})$ where Δ is the Laplace operator in curved space.

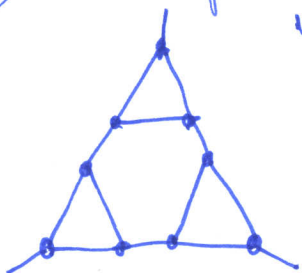
⑧ Find asymptotic of
$$\int d^D \Delta e^{i \vec{\Delta} \cdot \vec{b}} \Delta^{-2\alpha} \ln \left(\frac{m^2}{\Delta^2} \right)$$

for $|\vec{b}| \rightarrow \infty$.

⑨ Compute statistical sum for atoms of hydrogen.

⑩ Study differences in wave propagation for even and odd ~~dimension~~ number of space dimensions. Write short story about particularities of talking in a world with 4 space dimensions.

⑪ Compute Feynman graph where propagator are $\frac{1}{|X_1 - X_2|^{2\alpha}}$ and in each vertex



$$\alpha_1 + \alpha_2 + \alpha_3 = D$$

$\uparrow$ space dimension