

$$[A, X] = X$$

Problem: compute $P \exp \int_0^1 dt (a(t)A + x(t)X)$

claim This is

$$\int \mathcal{D}\alpha \mathcal{D}\xi \exp \int_0^1 dt \left(\alpha(t) a(t) + \xi(t) x(t) \right. \\ \left. + \alpha \partial_t \alpha + \xi \partial_t \xi \right) \\ \left. + x \int \partial_t \alpha \right)$$

