```
Unprotect[Integrate];  (* keys in yellow *)

∫ ω_ . 𝔼[L_] 𝕕(vs_List) :=

  Module[{n, L0, Q, Δ, G, Z0, Z, λ, DZ, FZ, a, b},

    n = Length@vs;  L0 = L /. ε → 0;

    Q = Table[(-∂_{vs⟦a⟧,vs⟦b⟧} L0) /. Thread[vs → 0] /.

        (p | x)__ → 0, {a, n}, {b, n}];

    If[(Δ = Det[Q]) == 0, Return@"Degenerate Q!"];

    Z = Z0 = CF@$π[L + vs.Q.vs / 2];  G = Inverse[Q];

    DZ_{a_} := ∂_{vs⟦a⟧} Z;  DZ_{a_,b_} := ∂_{vs⟦b⟧} DZ_a;

    FZ := CF@$π[ 1/2 ∑_{a=1}^{n} ∑_{b=1}^{n} G⟦a, b⟧ (DZ_{a,b} + DZ_a DZ_b) ];

    FixedPoint[ (Z = Z0 + ∫_0^λ FZ 𝕕λ) &, Z];

    PowerExpand@Factor[ ω Δ^{-1/2} ] ×

      𝔼[CF[Z /. λ → 1 /. Thread[vs → 0]]] ];

Protect[Integrate];
```