To relax momentum, add a 'random-field' coupling to the field operator $\mathcal{O}$:

$$\mathcal{S} \to \mathcal{S} + \int d^d r d\tau h(r) \mathcal{O}(r,\tau) \quad \text{with } \overline{h(r)} = 0 \text{ and } \overline{h(r)h(r')} = h_0^2 \delta^d(r-r')$$

Solution of Einstein-Maxwell equations for small h_0 yields the resistivity

$$\rho(T) \sim h_0^2 \, T^{(d-z+\eta)/z} \, ,$$

where $\dim[\mathcal{O}] = (d+z-2+\eta)/2$. This agrees with the *memory function* computation of the bosonic contribution of the "standard model" field theory. The crossover at higher energies to the Wilson-Fisher CFT (with $z=1$, $\eta \approx 0$) yields $\rho(T) \sim T$.