

We derived creation and annihilation operators in terms of fields ~~introduced~~ in the quantized classical field theory.

→ showed the consistency whether QFT is derived by taking continuum limit of NRQM or by quantizing a classical field theory.

→ Introduced "normal ordering" to equate these two pictures completely

Scattering theory.

Classified theories which can be solved by perturbation and which cannot.

→ nevertheless we develop the formalism by assuming ('ad-hoc') the existence of turn-off function asymptotically, which shuts down interaction at $t \rightarrow \pm\infty$

→ Introduced interaction picture and derived the unitary evolutionary operators in the interaction picture.

Introduce a toy model of a real scalar + a complex scalar

→ calculated 'S' matrix elements for 2×2 scattering → found Feynman rules.