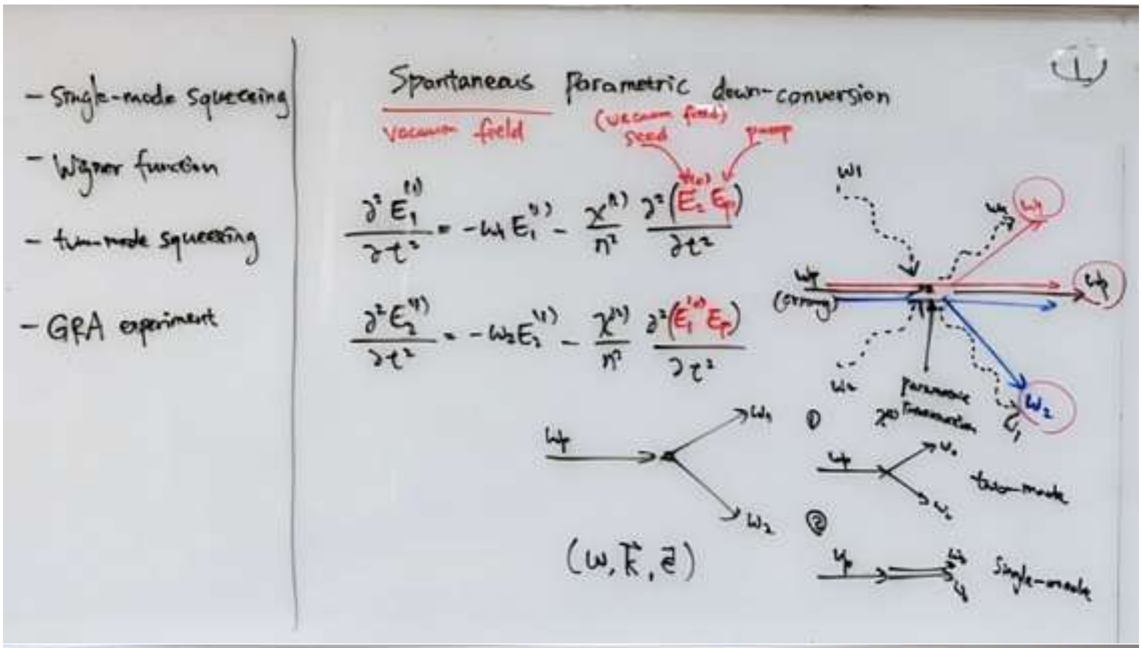
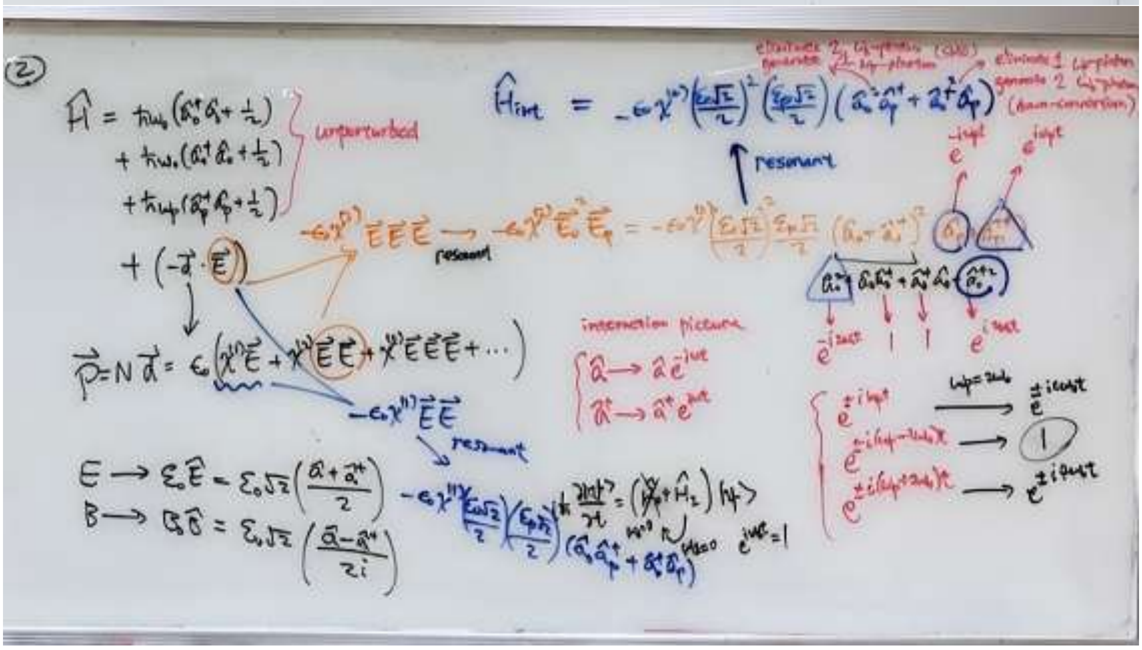
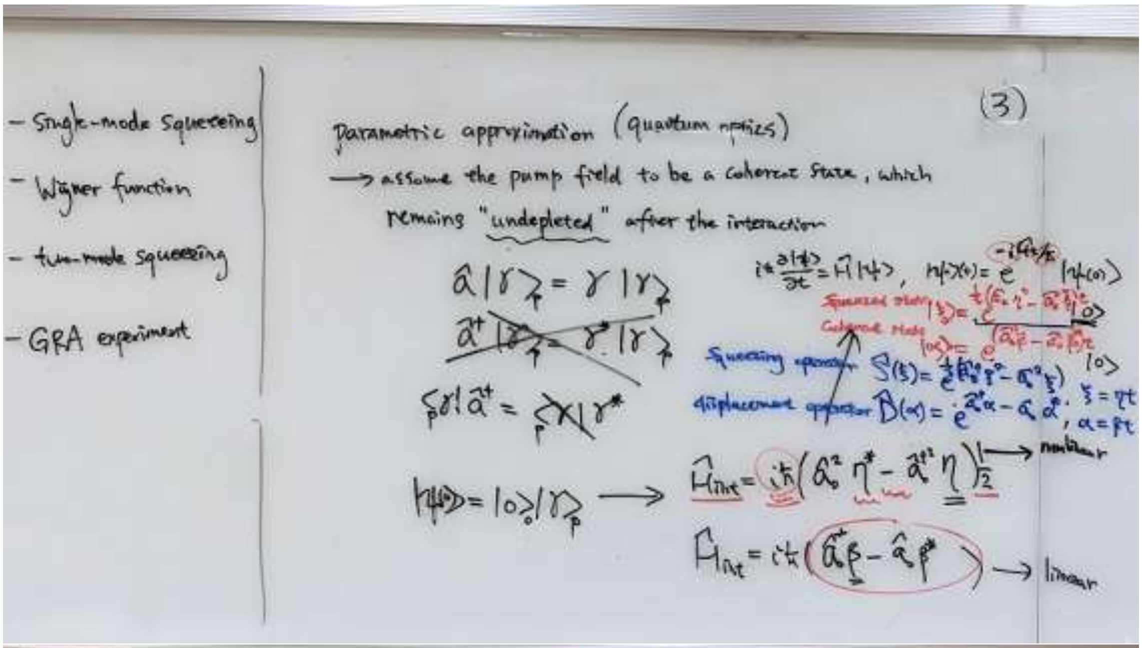
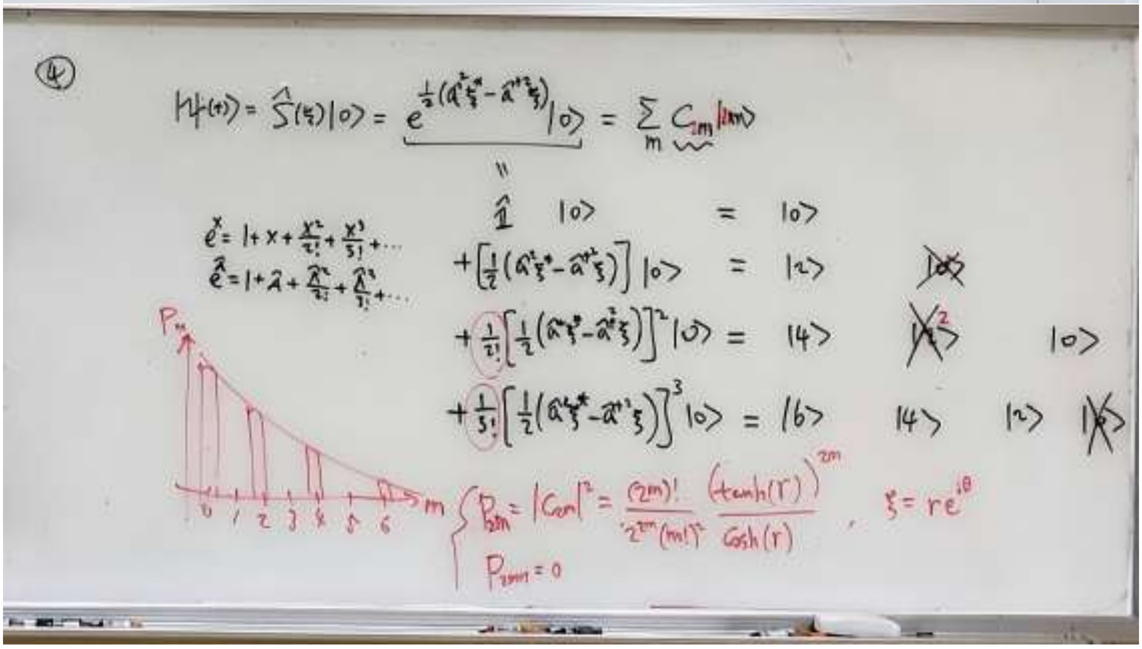
Lecture9 (optics) single-mode squeezing






- Single-mode squeezing
- Wigner function
- two-mode squeezing
- GRA experiment
(3)
Parametric approximation (quantum optics)
→ assume the pump field to be a coherent state, which
remains "undepleted" after the interaction
Squeezed state
Coherent state
Squeezing operator
displacement operator
→ nonlinear
→ linear


(4)
P_m
m
0 1 2 3 4 5 6
P_{2m+1} = 0
ξ = re^{iθ}

- Single-mode squeezing
- Wigner function
- two-mode squeezing
- GRA experiment