

SUMMARY FOR TEST 6

$$\left(Z \rightarrow F = -kT \ln Z \rightarrow S, \mu \right)$$

• ideal gas : non-relativ. & relativ.

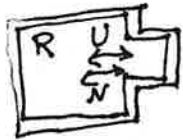
• Ising Model (Ferromagnet)

o 1 dim. $Z \rightarrow U$ ($B=0$)

o MF : derive self-consistent equ. & sketch to find solutions
($B=0$ and $B>0$)
(see HW31)

• Grand Canonical Distribution

o derive



o apply : O_2 , CO, hemoglobin, etc.

o (apply \rightarrow) Bosons & Fermions :

microstates,
derive \bar{n}_{FD} , \bar{n}_{BE}
or similar

NOT: Degenerate Fermigas