

Fermions  
and  
bosons

Fermi and Bose partons  
 $c = f b^\dagger$

$f_\alpha$ : Fermi liquid  
 $b$ : superfluid

Fermi liquid  
with heavy quasiparticles

$f_\alpha$ : Spinon band  
 $b$ : normal liquid

Model for  
pseudogap metal ?

$f$ : Fermi liquid  
 $b_\alpha$ : Paired superfluid

$Z_2$  holon metal