A. General exact representation

D. SK spin glass [k-RSB]

K+1 layers

$\log \sum \exp$
σ

w_i
$w_{i,l}$
$w_{i,l}$
$w_{i,l}$

$+$
$+$
$-$

$\ln\sigma$
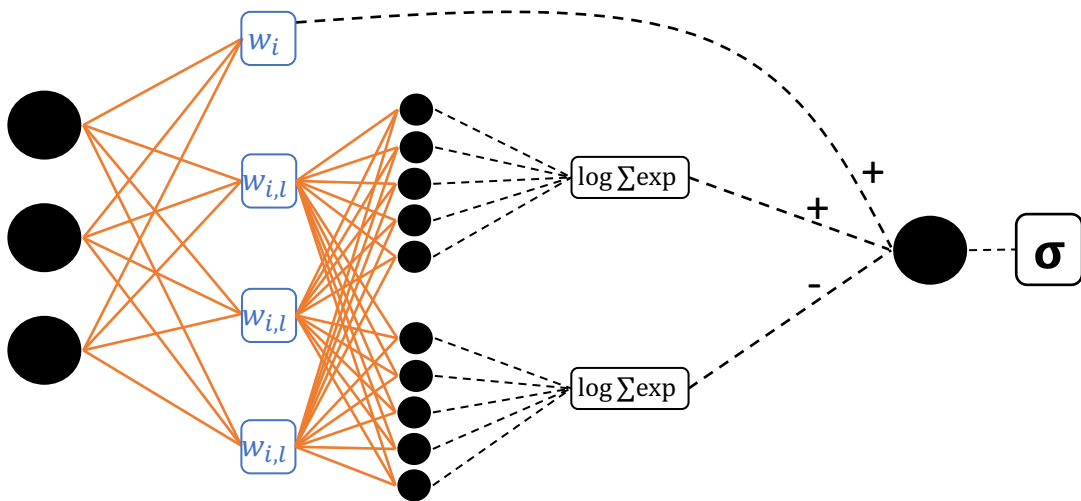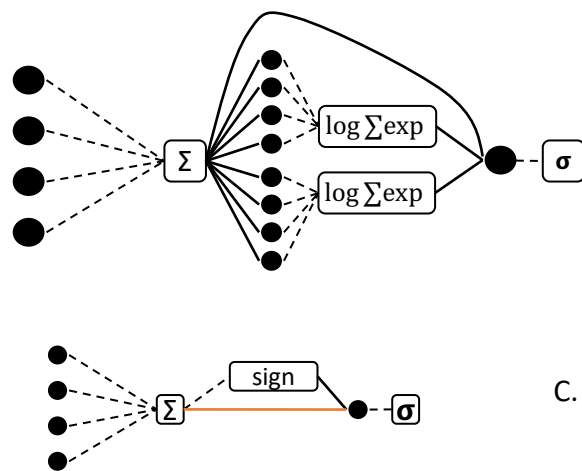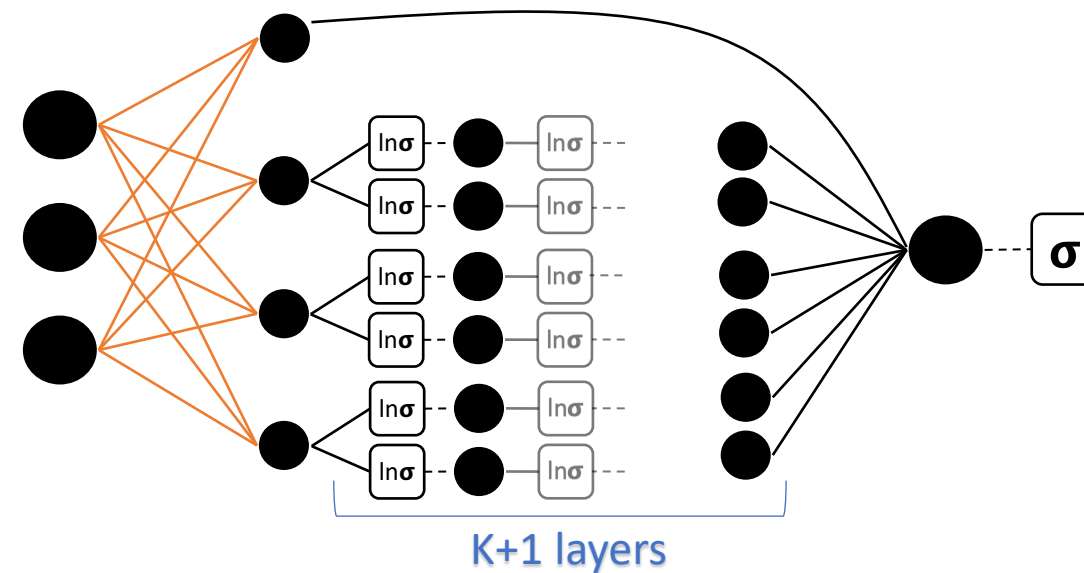
B. Curie-Weiss [Exact]

Σ
$\log \sum \exp$
$\log \sum \exp$
σ
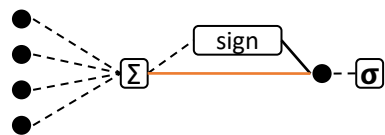
C. Curie-Weiss [Saddle Point]

sign
Σ
σ

Input value

Non-linear function

Linear operator [bias (b), weight (w), input (x)]: $b + wx$

Connector, identity operator.

Linear operator. Shared params fixed by the Hamiltonian.