





Session 12

We recall the general form of the Blume-Emery-Griffiths model ($S_i = \pm 1, 0 \quad \forall i$)

$$H = -J \sum_{\langle i,j \rangle} S_i S_j - h \sum_i S_i + D \sum_i S_i^2 + K \sum_{\langle i,j \rangle} S_i^2 S_j^2 + G \sum_{\langle i,j \rangle} (S_i^2 S_j + S_i S_j^2)$$

Rewrite it as a Potts model (hint, try generalised interactions such as $J(\sigma_i, \sigma_j)$ etc.)