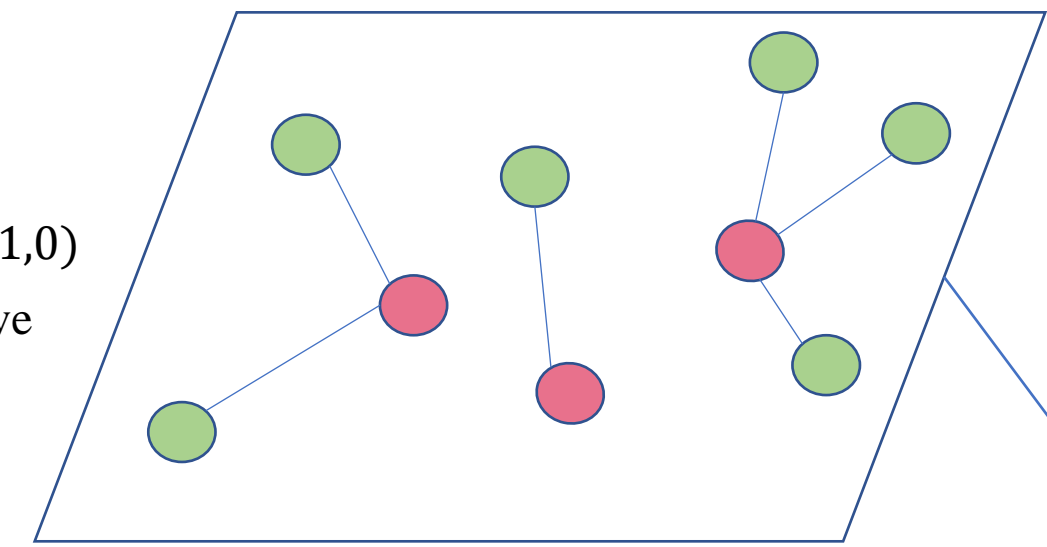
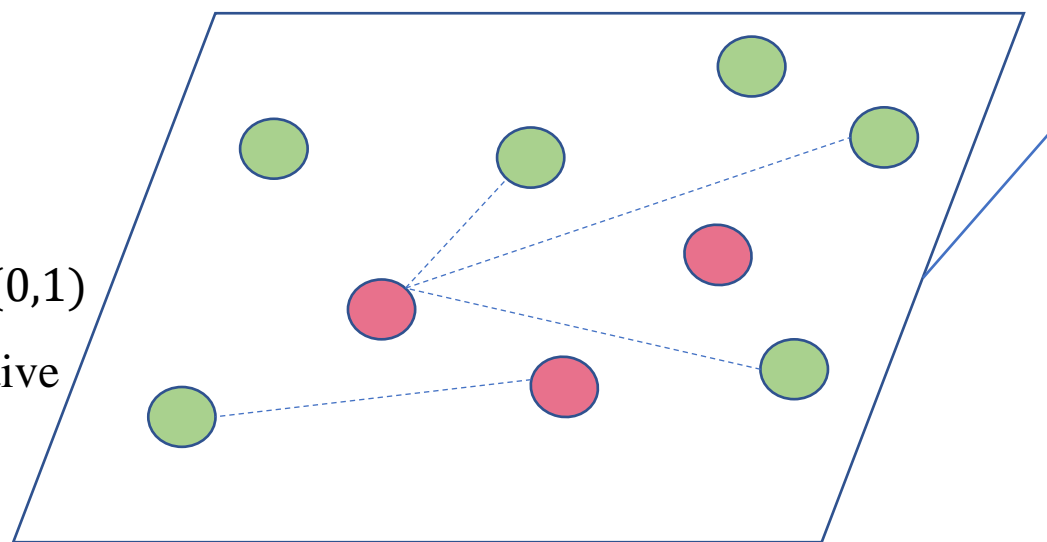


**A**
 $\vec{m} = (1,0)$   
Positive

 $\vec{m} = (0,1)$   
Negative


Entropy  
Maximization

$$p_{ij}^{(1,0)} = \frac{e^{-(\lambda_i^{(1,0)} + \mu_j^{(1,0)})}}{1 + e^{-(\lambda_i^{(1,0)} + \mu_j^{(1,0)})} + e^{-(\lambda_i^{(0,1)} + \mu_j^{(0,1)})}}$$

$$p_{ij}^{(0,1)} = \frac{e^{-(\lambda_i^{(0,1)} + \mu_j^{(0,1)})}}{1 + e^{-(\lambda_i^{(1,0)} + \mu_j^{(1,0)})} + e^{-(\lambda_i^{(0,1)} + \mu_j^{(0,1)})}}$$

$$p_{\text{conditional}} = \frac{p_{ij}^{(1,0)}}{p_{ij}^{(1,0)} + p_{ij}^{(0,1)}}$$



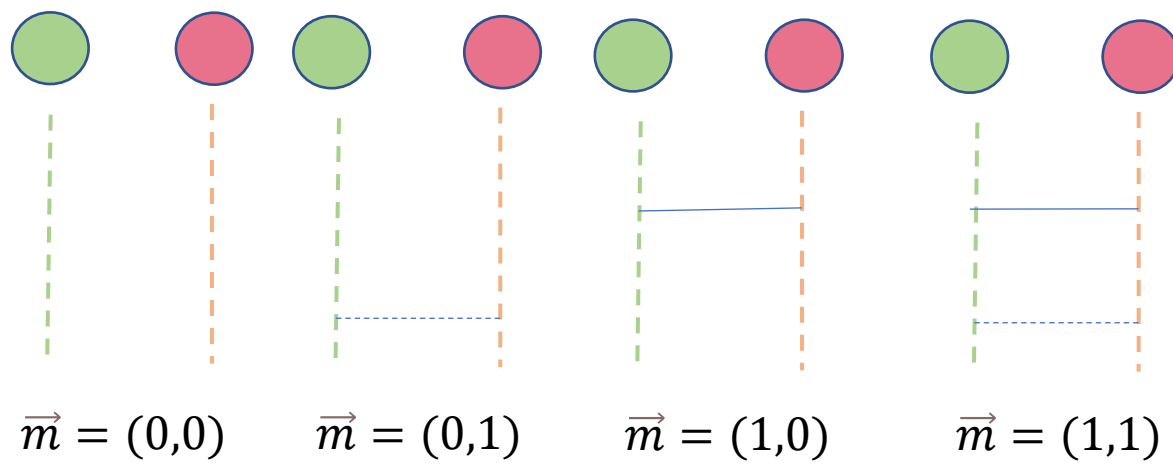
Protein



Ligand

Binding

Non-binding



Annotation

Unknown

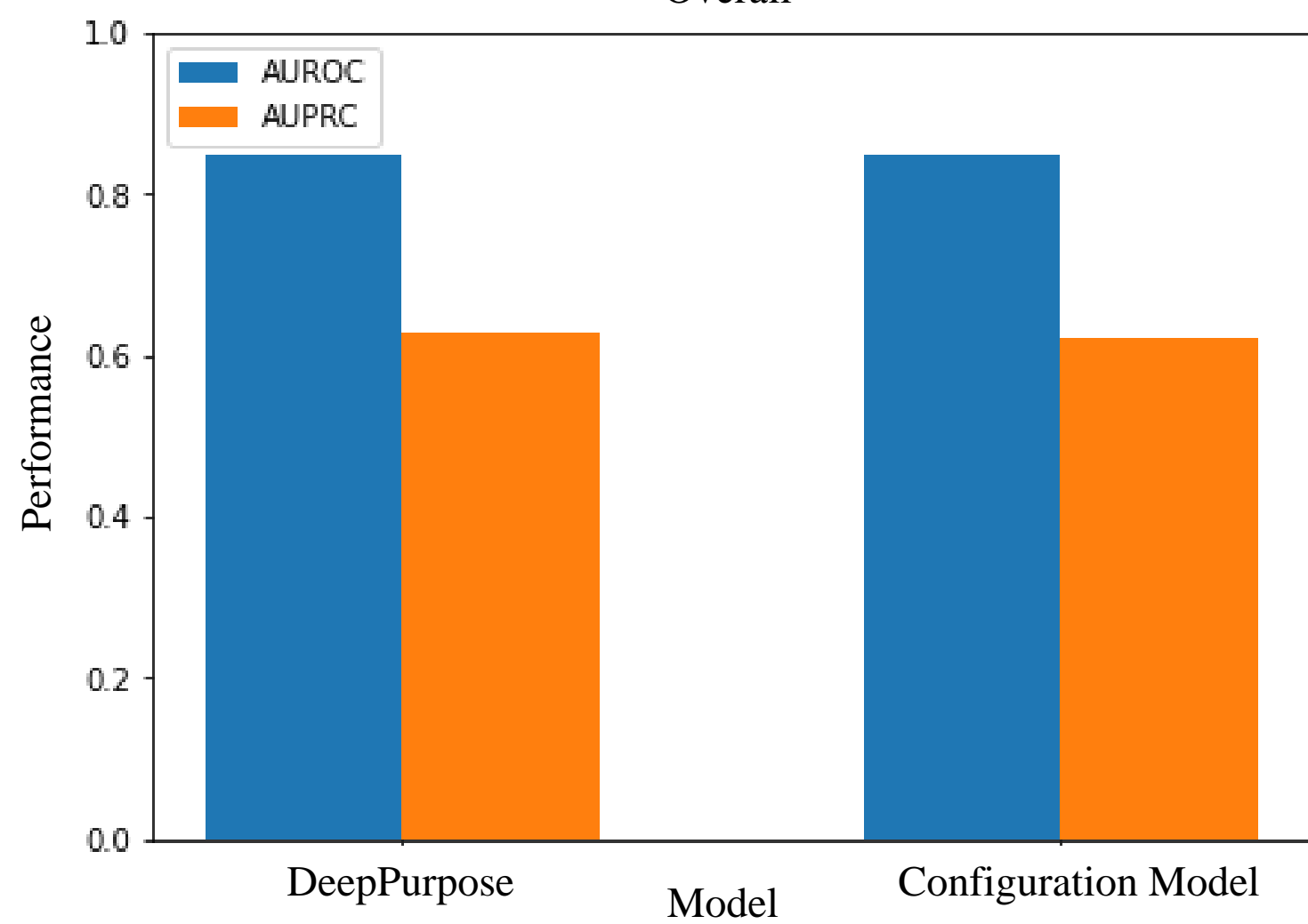
Negative

Positive

Not Possible

**B**

Overall

**C**

Different Tests

