ALGORITHM 2 – REVISED LIKELIHOOD ASSIGNMENT AND EDGE WEIGHTING

1: Input: Edge sets (E^{1}, ..., E^{M}) for M layers where E^{α} is the edge set of target layer, Average Frequency Set F^{M} and Occurrence Set O^{M}

2: Output: Weighted adjacency matrix for layer α (target layer)

//Calculate weights for the layers

3: **for** i ∈ {1, 2, ..., M} − {α} **do**

4: w_i = Likelihood(Link in L^{α} | Link in L^{i})

5: **end for**

//Weighting target layer

6: **for** edge e ∈ E^{α} **do**

7: w_e = rate + $\sum_{i=1 \,\&\, i \neq \alpha}^{M} W_i$ **X log (f_i) X linkExist(e) X O_i**

8: **end for**