

Embedding Distance (0,inf)  $\rightarrow$  Pixel Similarity (1,0)

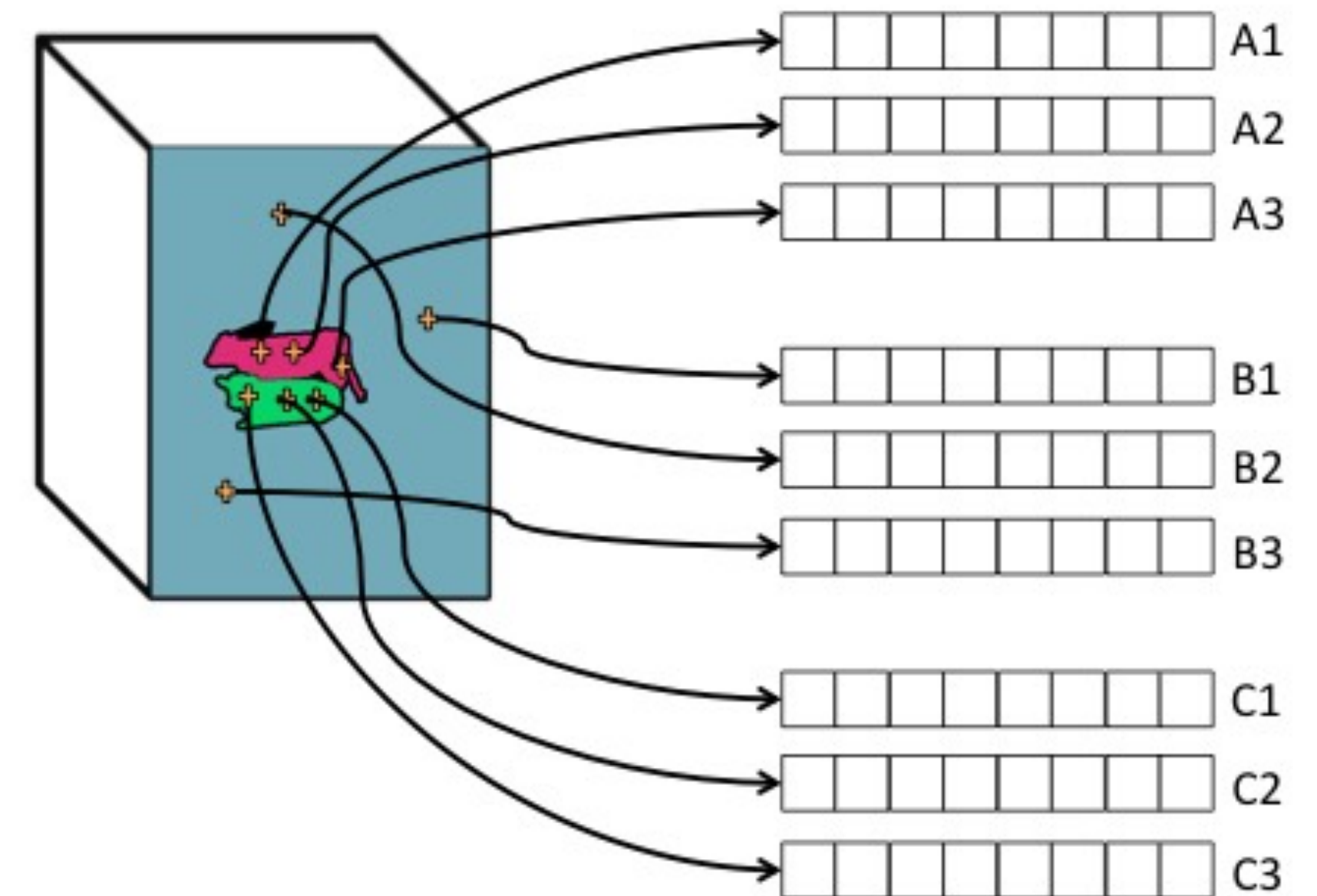
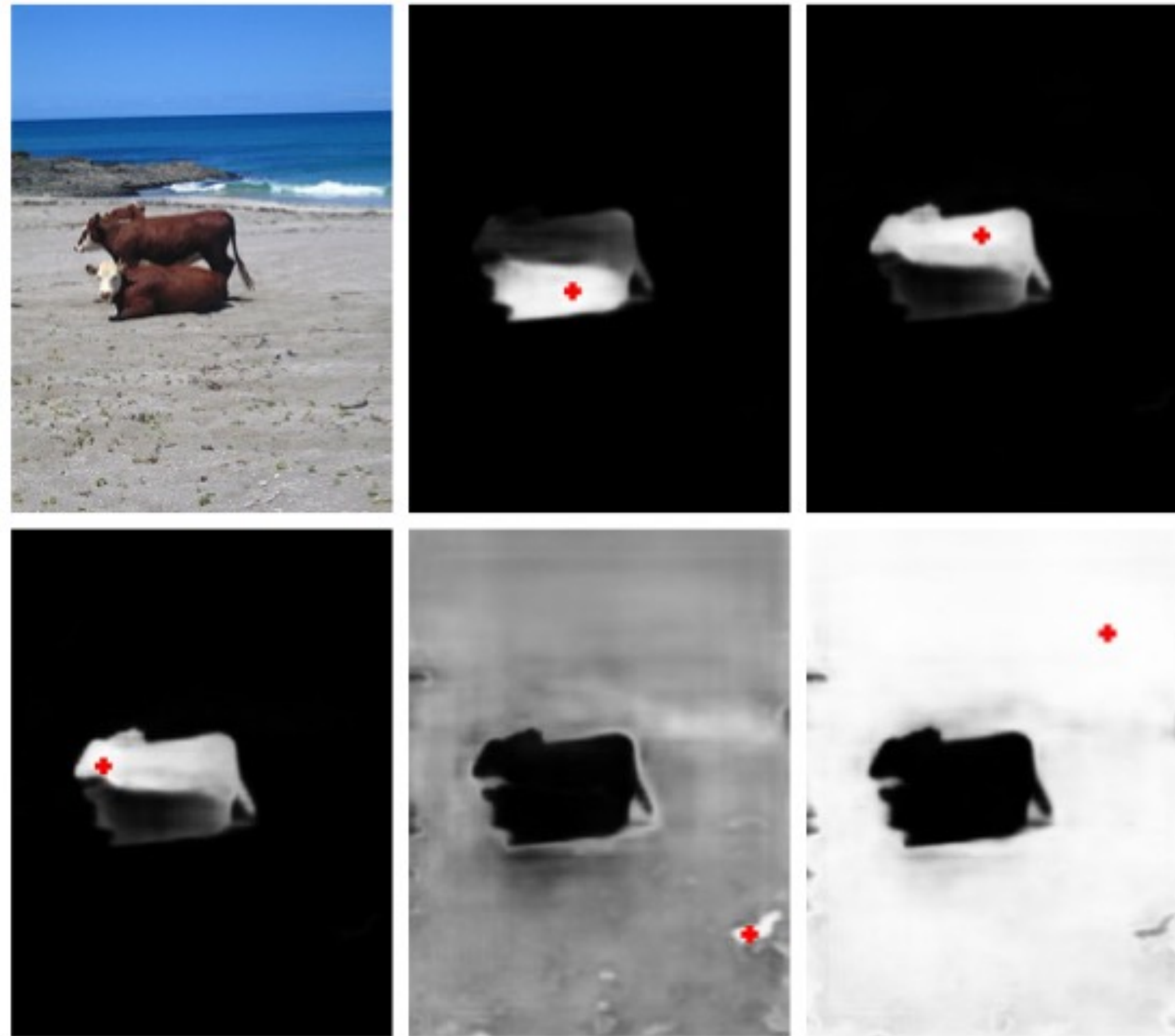
- Sigmoid
- Cross entropy

$$\sigma(p, q) = \frac{2}{1 + \exp(\|e_p - e_q\|_2^2)}$$

$$L_e = -\frac{1}{|S|} \sum_{p,q \in S} w_{pq} \cdot \begin{cases} \ln(\sigma(p, q)), & y_p = y_q \\ \ln(1 - \sigma(p, q)), & y_p \neq y_q \end{cases}$$

# Another Embedding Approach

## Discussion



From *Semantic instance segmentation via deep metric learning* by Fathi, Alireza, et al., 2017