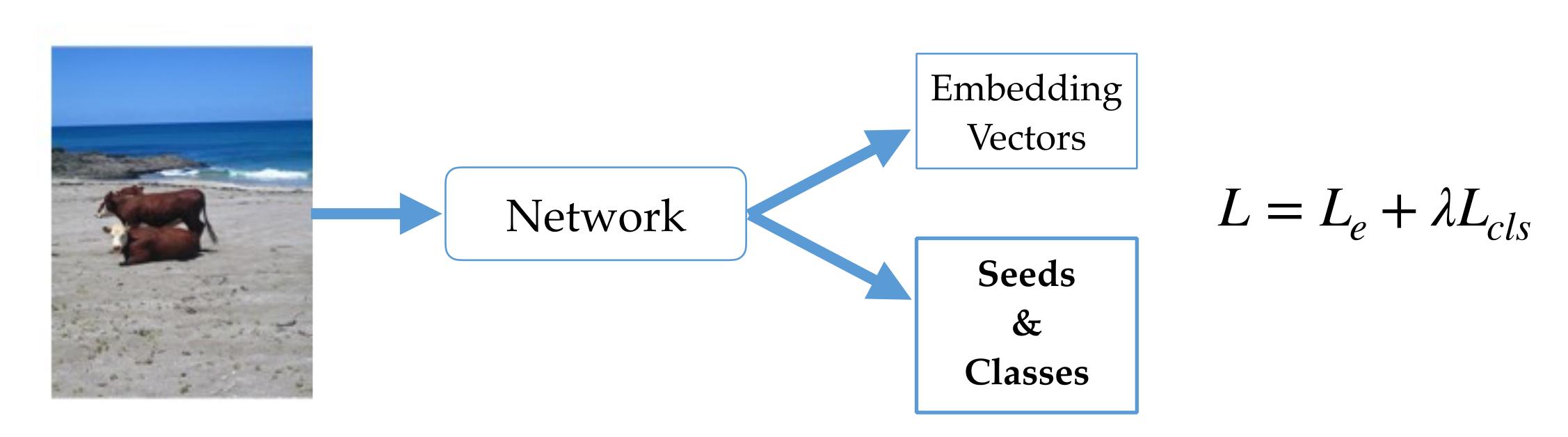
## **Another Embedding Approach**

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



Seeds: Pixels which can represent the instance better





Embedding Distance (0,inf) → Pixel Similarity (1,0)

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

- Sigmoid
- Cross entropy

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

