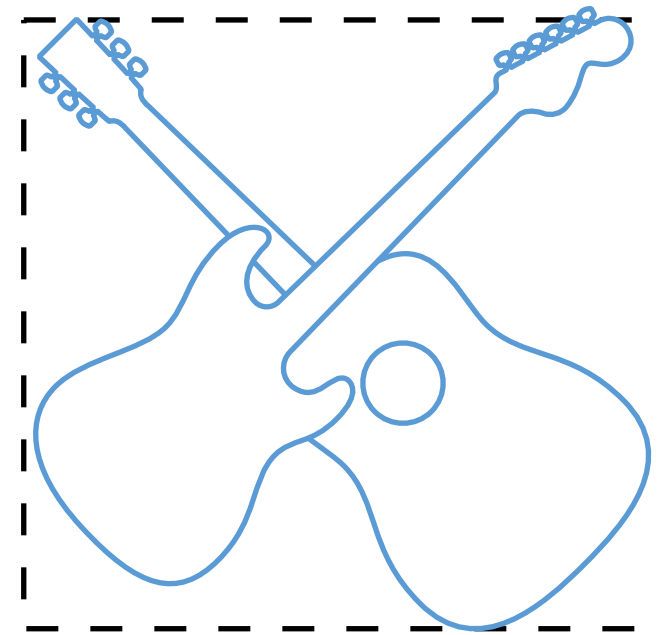Proposal-based:

- Better results
- Proposal is deciding
- Bounding box
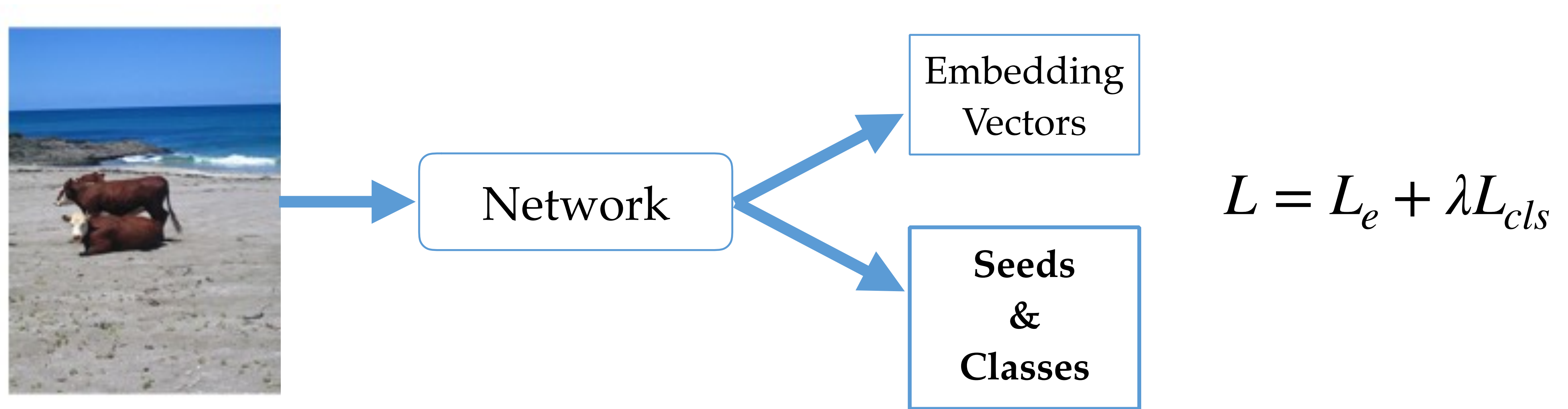
This method:

- No risk of proposal
- No prior knowledge of #instance needed
- Suitable for off-the-shelf networks
- Semantic network

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

Seeds: Pixels which can represent the instance better

$$L = L_e + \lambda L_{cls}$$