

# Meta-Learning with Latent Embedding Optimization (LEO)

Andrei A. Rusu, Dushyant Rao, Jakub Sygnowski, Oriol Vinyals, Razvan Pascanu, Simon Osindero, Raia Hadsell

We learn a data-dependent latent generative representation of model parameters, and perform gradient-based meta-learning in this low dimensional latent space.

The resulting approach, Latent Embedding Optimization (LEO), decouples the gradient-based adaptation procedure from the underlying high-dimensional space of model parameters.

LEO is *state-of-the-art* on both *miniImageNet* and *tieredImageNet* 5-way 1-shot and 5-shot classification tasks.

