Continuous mixture of Gaussians

$$p(x) = \int p(x \mid t)\, p(t) dt$$

$$p(t) = \mathcal{N}(0, I)$$

$$p(x \mid t) = \mathcal{N}(\mu(t), \Sigma(t))$$

If $\mu(t) = Wt + b, \Sigma(t) = \Sigma_0$ get PPCA

(see week 2)